

=> FILE REG

FILE 'REGISTRY' ENTERED AT 14:51:33 ON 16 JUL 2009  
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=> D HIS

FILE 'REGISTRY' ENTERED AT 09:59:05 ON 16 JUL 2009

	E EPIFLUOROHYDRIN/CN
L1	1 S E3
	E EPICHLOROHYDRIN/CN
L2	1 S E3
	E EPIBROMOHYDRIN/CN
L3	1 S E3
	E EPIIODOHYDRIN/CN
L4	1 S E3
	E BENZYLAMINE/CN
L5	1 S E3
	E BIS(2-AMINOETHYL)ETHER/CN

FILE 'HCAPLUS' ENTERED AT 10:05:27 ON 16 JUL 2009

L6	28717 S WOLF ?/AU
L7	265 S HUFFER ?/AU
L8	5407 S DECKER ?/AU
L9	436 S SCHERR ?/AU
L10	2757 S REESE ?/AU
L11	0 S L6 AND L7 AND L8 AND L9 AND L10
L12	1 S L6 AND L7
L13	16 S L6 AND L8
L14	4 S L6 AND L9
L15	8 S L6 AND L10
L16	0 S L7 AND L8
L17	0 S L7 AND L9
L18	1 S L7 AND L10
L19	3 S L8 AND L9
L20	3 S L8 AND L10
L21	11 S L9 AND L10
L22	50748 S LEATHER?
L23	7 S (L12-L21) AND L22
L24	19381 S L2
L25	0 S (L12-L21) AND L24
	SEL L23 1-7 RN

FILE 'REGISTRY' ENTERED AT 10:09:51 ON 16 JUL 2009

L26 28 S E1-E28  
 L27 9 S L26 AND N/ELS  
 E ETHER, BIS(2-AMINOETHYL)/CN  
  
 FILE 'HCA' ENTERED AT 10:14:55 ON 16 JUL 2009  
 L28 220 S (BIS(3A)AMINOETHYL(3A)ETHER#)/IT  
  
 FILE 'REGISTRY' ENTERED AT 10:17:03 ON 16 JUL 2009  
 L29 1 S 2752-17-2  
 E N,N-DIMETHYLETHYLENEDIAMINE/CN  
 L30 1 S E3  
 E PIPERAZINE/CN  
 L31 1 S E3  
 E ETHYLENEDIAMINE/CN  
 L32 1 S E3  
 E N,N-DIMETHYLAMINOPROPYLAMINE/CN  
 E N,N-DIMETHYLAMINOPROPYL AMINE/CN  
  
 FILE 'HCA' ENTERED AT 10:23:12 ON 16 JUL 2009  
 L33 794 S DIMETHYLAMINOPROPYLAMINE#/IT  
  
 FILE 'REGISTRY' ENTERED AT 10:24:38 ON 16 JUL 2009  
 L34 1 S 109-55-7  
  
 FILE 'REGISTRY' ENTERED AT 10:26:19 ON 16 JUL 2009  
 E METHYLBIS(3-AMINOPROPYL)AMINE/CN  
 L35 1 S E3  
 L36 1 S 841312-89-8  
 E METHYLBIS(2-AMINOETHYL)AMINE/CN  
 E 1,2-ETHANEDIAMINE, N1-(2-AMINOETHYL)-N1-METHYL-/CN  
 L37 1 S E3  
 E N-(2-AMINOETHYLPIPERAZINE)/CN  
 E N-(2-AMINOETHYL)PIPERAZINE/CN  
 L38 1 S E3  
 E N-AMINOETHYLPIPERAZINE/CN  
 E N-AMINOETHYL PIPERAZINE/CN  
 E PIPERAZINE, N-AMINOETHYL-/CN  
  
 FILE 'HCA' ENTERED AT 10:34:01 ON 16 JUL 2009  
 L39 346 S AMINOETHYLPIPERAZINE#/IT  
 L40 26077 S EPICHLOROHYDRIN#/IT  
 L41 13 S L39 AND L40  
  
 FILE 'REGISTRY' ENTERED AT 10:39:43 ON 16 JUL 2009  
 L42 1 S 140-31-8  
 L43 1 S L42 AND L38  
 E N-(1-AMINOETHYL)PIPERAZINE/CN

E PIPERAZINE, N-(1-AMINOETHYL)/CN

FILE 'LREGISTRY' ENTERED AT 10:44:53 ON 16 JUL 2009

L44 STR  
L45 0 S L44  
L46 0 S L44 FUL

FILE 'REGISTRY' ENTERED AT 10:46:07 ON 16 JUL 2009

L47 1 S L44  
L48 1 S 141656-32-8  
E DIETHYLENETRIAMINE/CN  
L49 1 S E3  
E DIPROPYLENETRIAMINE/CN  
L50 3 S E3  
E TRIETHYLENETETRAMINE/CN  
L51 1 S E3  
E 4,7-DIMETHYLTRIETHYLENETETRAMINE/CN  
L52 1 S E4  
L53 1 S 7382-58-3  
E DIMETHYLAMINOPROPYLAMINE/CN  
L54 1 S E4  
L55 1 S 109-55-7  
E TETRAETHYLENEPENTAMINE/CN  
L56 1 S E3  
L57 4 S L1-L4  
SEL L57 1-4 RN  
EDIT E1-E4 /BI /CRN  
L58 28549 S E1-E4  
SEL L5 1 RN  
EDIT E5 /BI /CRN  
L59 1606 S E5  
SEL L29 1 RN  
EDIT E6 /BI /CRN  
L60 70 S E6  
SEL L30 RN  
EDIT E7 /BI /CRN  
L61 118 S E7  
SEL L31 1 RN  
EDIT E8 /BI /CRN  
L62 3789 S E8  
SEL L32 RN  
EDIT E9 /BI /CRN  
L63 8769 S E9  
SEL L34 RN  
EDIT E10 /BI /CRN  
L64 577 S E10  
SEL L35 RN

		EDIT E11 /BI /CRN
L65	351	S E11
		SEL L37 RN
		EDIT E12 /BI /CRN
L66	10	S E12
		SEL L38 RN
		EDIT E13 /BI /CRN
L67	468	S E13
		SEL L48 RN
		EDIT E14 /BI /CRN
L68	2	S E14
		SEL L49 RN
		EDIT E15 /BI /CRN
L69	4255	S E15
		SEL L50 RN
		EDIT E16-E18 /BI /CRN
L70	368	S E16-E18
		SEL L51 RN
		EDIT E19 /BI /CRN
L71	1894	S E19
		SEL L53 RN
		EDIT E20 /BI /CRN
L72	2	S E20
		SEL L55 RN
		EDIT E21 /BI /CRN
L73	577	S E21
		SEL L56 RN
		EDIT E22 /BI /CRN
L74	890	S E22
L75	0	S L59 AND L60
L76	0	S L59 AND L61
L77	1	S L59 AND L62
L78	0	S L59 AND L63
L79	2	S L59 AND L64
L80	0	S L59 AND L65
L81	0	S L59 AND L66
L82	0	S L59 AND L67
L83	0	S L59 AND L68
L84	0	S L59 AND L69
L85	0	S L59 AND L70
L86	0	S L59 AND L71
L87	0	S L59 AND L72
L88	2	S L59 AND L73
L89	0	S L59 AND L74
L90	0	S L60 AND L61
L91	0	S L60 AND L62
L92	1	S L60 AND L63

L93	0	S	L60	AND	L64
L94	0	S	L60	AND	L65
L95	0	S	L60	AND	L66
L96	0	S	L60	AND	L67
L97	0	S	L60	AND	L68
L98	0	S	L60	AND	L69
L99	0	S	L60	AND	L70
L100	0	S	L60	AND	L71
L101	0	S	L60	AND	L72
L102	0	S	L60	AND	L73
L103	0	S	L60	AND	L74
L104	0	S	L61	AND	L62
L105	5	S	L61	AND	L63
L106	0	S	L61	AND	L64
L107	0	S	L61	AND	L65
L108	0	S	L61	AND	L66
L109	0	S	L61	AND	L67
L110	0	S	L61	AND	L68
L111	0	S	L61	AND	L69
L112	0	S	L61	AND	L70
L113	1	S	L61	AND	L71
L114	0	S	L61	AND	L72
L115	0	S	L61	AND	L73
L116	0	S	L61	AND	L74
L117	87	S	L62	AND	L63
L118	3	S	L62	AND	L64
L119	1	S	L62	AND	L65
L120	0	S	L62	AND	L66
L121	13	S	L62	AND	L67
L122	0	S	L62	AND	L68
L123	55	S	L62	AND	L69
L124	1	S	L62	AND	L70
L125	7	S	L62	AND	L71
L126	0	S	L62	AND	L72
L127	3	S	L62	AND	L73
L128	3	S	L62	AND	L74
L129	5	S	L63	AND	L64
L130	20	S	L63	AND	L65
L131	0	S	L63	AND	L66
L132	12	S	L63	AND	L67
L133	0	S	L63	AND	L68
L134	268	S	L63	AND	L69
L135	10	S	L63	AND	L70
L136	66	S	L63	AND	L71
L137	0	S	L63	AND	L72
L138	5	S	L63	AND	L73
L139	14	S	L63	AND	L74

L140	15	S	L64	AND	L65
L141	0	S	L64	AND	L66
L142	0	S	L64	AND	L67
L143	0	S	L64	AND	L68
L144	58	S	L64	AND	L69
L145	2	S	L64	AND	L70
L146	3	S	L64	AND	L71
L147	0	S	L64	AND	L72
L148	577	S	L64	AND	L73
L149	7	S	L64	AND	L74
L150	0	S	L65	AND	L66
L151	11	S	L65	AND	L67
L152	0	S	L65	AND	L68
L153	18	S	L65	AND	L69
L154	1	S	L65	AND	L70
L155	2	S	L65	AND	L71
L156	0	S	L65	AND	L72
L157	15	S	L65	AND	L73
L158	3	S	L65	AND	L74
L159	0	S	L66	AND	L67
L160	0	S	L66	AND	L68
L161	0	S	L66	AND	L69
L162	0	S	L66	AND	L70
L163	0	S	L66	AND	L71
L164	0	S	L66	AND	L72
L165	0	S	L66	AND	L73
L166	0	S	L66	AND	L74
L167	0	S	L67	AND	L68
L168	21	S	L67	AND	L69
L169	0	S	L67	AND	L70
L170	18	S	L67	AND	L71
L171	0	S	L67	AND	L72
L172	0	S	L67	AND	L73
L173	5	S	L67	AND	L74
L174	0	S	L68	AND	L69
L175	0	S	L68	AND	L70
L176	0	S	L68	AND	L71
L177	0	S	L68	AND	L72
L178	0	S	L68	AND	L73
L179	0	S	L68	AND	L74
L180	16	S	L69	AND	L70
L181	144	S	L69	AND	L71
L182	0	S	L69	AND	L72
L183	58	S	L69	AND	L73
L184	39	S	L69	AND	L74
L185	3	S	L70	AND	L71
L186	0	S	L70	AND	L72

L187            2 S L70 AND L73  
 L188            0 S L70 AND L74  
 L189            0 S L71 AND L72  
 L190            3 S L71 AND L73  
 L191           39 S L71 AND L74  
 L192            0 S L72 AND L73  
 L193            0 S L72 AND L74  
 L194            7 S L73 AND L74  
 L195           147 S L58 AND (L75-L147 OR L149-L194)  
               SAV L195 HAM375A/A  
 L196            9 S L195 AND 3/NC  
 L197            1 S L196 AND L26

FILE 'HCA' ENTERED AT 13:17:51 ON 16 JUL 2009

L198            2 S L197  
 L199            9 S L196  
 L200           18908 S RACT/RL (L) L5  
 L201            280 S RACT/RL (L) L29  
 L202           3628 S RACT/RL (L) L30  
 L203           6074 S RACT/RL (L) L31  
 L204           13494 S RACT/RL (L) L32  
 L205           2918 S RACT/RL (L) L34  
 L206            393 S RACT/RL (L) L35  
 L207            120 S RACT/RL (L) L37  
 L208            595 S RACT/RL (L) L38  
 L209            0 S RACT/RL (L) L48  
 L210           3153 S RACT/RL (L) L49  
 L211            798 S RACT/RL (L) L50  
 L212           1524 S RACT/RL (L) L51  
 L213            17 S RACT/RL (L) L53  
 L214            710 S RACT/RL (L) L56  
 L215           1600 S L200 AND (L201-L214)  
 L216            96 S L201 AND (L202-L214)  
 L217           1309 S L202 AND (L203-L214)  
 L218            733 S L203 AND (L204-L214)  
 L219           1169 S L204 AND (L205-L214)  
 L220            199 S L205 AND (L206-L214)  
 L221            169 S L206 AND (L207-L214)  
 L222            37 S L207 AND (L208-L214)  
 L223            113 S L208 AND (L209-L214)  
 L224            0 S L209 AND (L210-L214)  
 L225            866 S L210 AND (L211-L214)  
 L226            120 S L211 AND (L212-L214)  
 L227            329 S L212 AND (L213 OR L214)  
 L228            0 S L213 AND L214  
 L229           10121 S (L1 OR L2 OR L3 OR L4) (L) RACT/RL  
 L230            630 S L229 AND (L200-L228)

L231 140279 S ALKYLAT?  
L232 QUE ACID? OR PH  
L233 48974 S LEATHER?  
E FABRIC FINISHING/CV  
L234 3266 S E3  
L235 84 S L230 AND L231  
L236 49 S L235 AND L232  
L237 0 S L230 AND L233  
L238 0 S L230 AND L234

FILE 'LCA' ENTERED AT 14:36:40 ON 16 JUL 2009

L239 2717 S (FABRIC? OR TEXTILE? OR CLOTH? OR GARMENT? OR YARN? OR  
L240 2425 S (FIBER? OR FIBR? OR FILAMENT? OR THREAD? OR STRAND? OR  
L241 16426 S (TREAT? OR PRETREAT? OR CONDITION? OR PRECONDITION? OR  
L242 330 S (L239 OR L240) (2A) (FINISH? OR L241)

FILE 'HCA' ENTERED AT 14:37:56 ON 16 JUL 2009

L243 233126 S L242  
L244 14 S L230 AND L243  
L245 0 S L244 AND L236  
L246 0 S L236 AND 40/SC,SX  
L247 13 S L230 AND 40/SC,SX  
L248 3165 S CATIONIZ? OR CATIONIS?

FILE 'REGISTRY' ENTERED AT 14:45:29 ON 16 JUL 2009

E FORMIC ACID/CN  
L249 1 S E3  
E HYDROCHLORIC ACID/CN  
L250 1 S E3

FILE 'HCA' ENTERED AT 14:46:24 ON 16 JUL 2009

L251 86782 S L249 OR FORMIC#(A)ACID# OR HCOOH OR HCO2H  
L252 676807 S L250 OR (HYDROCHLORIC# OR MURIATIC#) (A)ACID# OR HCL  
L253 0 S L235 AND L251  
L254 12 S L235 AND L252  
L255 7 S L230 AND L251  
L256 1 S L230 AND L248  
L257 9 S L198 OR L199  
L258 9 S 1808-2004/PY,PRY,AY AND L257  
L259 38 S (L244 OR L247 OR L254 OR L255 OR L256) NOT L258  
L260 40 S L236 NOT (L258 OR L259)  
L261 31 S 1808-2004/PY,PRY,AY AND L259  
L262 34 S 1808-2004/PY,PRY,AY AND L260  
L263 40 S L235 NOT (L258 OR L261 OR L262)  
L264 28 S 1808-2004/PY,PRY,AY AND L263  
L265 64 S L230 AND (35 OR 36 OR 37 OR 38)/SC,SX  
L266 57 S L265 NOT (L258 OR L261 OR L262 OR L264)



L267 39 S 1808-2004/PY,PRY,AY AND L266  
 L268 2179 S ?EPICHLOROHYDRINAMIN? OR ?EPICHLOROHYDRIN(2A)(AMINE# OR  
 L269 3 S L267 AND L268  
 L270 0 S L264 AND L268  
 L271 103 S L229 AND (L215-L228)  
 L272 39 S L271 AND (L231 OR L233 OR L234 OR L243 OR 40/SC,SX OR L  
 L273 QUE POLYM? OR COPOLYM? OR TERPOLYM? OR RESIN? OR GUM#  
 SAV L271 HAM375/A  
 L274 30 S L271 AND L273  
 L275 53 S (L272 OR L274) NOT L258  
 L276 35 S 1808-2004/PY,PRY,AY AND L275

=> FILE HCA

FILE 'HCA' ENTERED AT 14:51:47 ON 16 JUL 2009

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=> D L258 1-9 BIB ABS HITSTR HITRN RE

L258 ANSWER 1 OF 9 HCA COPYRIGHT 2009 ACS on STN

AN 144:53259 HCA Full-text

TI Pigment coated paper base and printing paper prepared thereby

IN Naito, Jun

PA Fuji Photo Film B.V., Neth.

SO PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2005118953	A1	20051215	WO 2005-NL403	20050603

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,  
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM,  
 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,  
 MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,

SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA,  
 UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,  
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,  
 DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC,  
 NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA,  
 GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 EP 1766132 A1 20070328 EP 2005-749172

200506  
 03

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R: DE, FR, GB, NL  
 JP 2008501870 T 20080124 JP 2007-514957

200506  
 03

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US 20070148377 A1 20070628 US 2006-564525

200611  
 29

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PRAI EP 2004-76658 A 20040603 <--  
 WO 2005-NL403 W 20050603

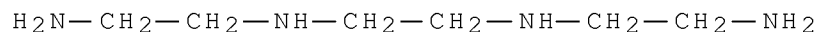
AB A pigment coated paper base is composed of a paper base and a water-based pigmented hydrophilic coating contg. an alkyl ketene dimer and an epoxidized fatty acid amide as sizing agent, and the coating comprises pigment selected from CaCO<sub>3</sub>, TiO<sub>2</sub>, BaSO<sub>4</sub>, clay, magnesium-aluminum silicate, and styrene-acrylic copolymer, while the binder is selected from styrene-butadiene rubber, Me methacrylate-butadiene rubber, polyacrylate rubber, styrene-acrylic rubber, polyvinyl alc., polysaccharides, and starch. Printing paper comprising the above pigment coated paper and polymer layers made from polyethylene, polypropylene, or polymethyl methacrylate, is also provided. Thus, paper base was prepd. using epoxidized fatty acid amide and alkyl ketene dimer as internal sizing agent and coated with CaCO<sub>3</sub>, and then melt co-extrusion coated with a coating comprising LDPE, LLDPE, and TiO<sub>2</sub> on one side, and coated with a compn. contg. LDPE and HDPE on the backside.

IT ~~871245-48-6D~~, Diethylenetriamine-epichlorohydrin-triethylenetetramine copolymer, reaction products with behenic acid (pigment coated paper base for printing paper)

RN 871245-48-6 HCA

CN 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with N-(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane (9CI) (CA INDEX NAME)

CRN 112-24-3  
CMF C6 H18 N4



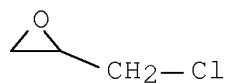
CM 2

CRN 111-40-0  
CMF C4 H13 N3



CM 3

CRN 106-89-8  
CMF C3 H5 Cl O



IT 871245-48-6D, Diethylenetriamine-epichlorohydrin-triethylenetetramine copolymer, reaction products with behenic acid (pigment coated paper base for printing paper)

RE

- (1) Fuji Photo Film B V; EP 0952483 A 1999 HCA
- (2) Kerkhoff; US 4808267 A 1989 HCA
- (3) Tamagawa; US 5474856 A 1995 HCA
- (4) Uno; US 4994357 A 1991 HCA

L258 ANSWER 2 OF 9 HCA COPYRIGHT 2009 ACS on STN

AN 142:263510 HCA Full-text

TI Surface treatment of semifinished leather with cationic or amphoteric polymers

IN Wolf, Gerhard; Hueffer, Stephan; Reese, Oliver; Decker, Juergen; Igl, Georg; Schroeder, Stefan; Scherr, Guenter

PA BASF Aktiengesellschaft, Germany  
 SO PCT Int. Appl., 20 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2005017210	A1	20050224	WO 2004-EP8607	20040730
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	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10336453	A1	20050303	DE 2003-10336453	20030806
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	EP 1651782	A1	20060503	EP 2004-763684	20040730
				<--	
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
	CN 1833036	A	20060913	CN 2004-80022510	20040730
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	BR 2004013247	A	20061003	BR 2004-13247	20040730
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	US 20070266501	A1	20071122	US 2006-566967	20060202
				<--	

PRAI DE 2003-10336453 A 20030806 <--  
WO 2004-EP8607 W 20040730 <--

OS MARPAT 142:263510

AB The surface of semifinished leather is treated with a cationic or amphoteric aq. treating agent, e.g., an amine-epichlorohydrin copolymer by roll coating, roller application, and/or spraying and the leather is then treated with an anionic agent, e.g., a dye, fatliquoring agent or after-tanning agent, in a drum. The procedure serves to improve leather fastness, to produce 2-color effect on leather, to reduce dye consumption, etc.

IT ~~841312-89-8P~~, Benzylamine-N,N-dimethyl-1,3-propanediamine-Epichlorohydrin copolymer  
(treatment of semifinished leather surfaces with cationic or amphoteric polymers)

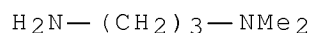
RN 841312-89-8 HCA

CN 1,3-Propanediamine, N,N-dimethyl-, polymer with benzenemethanamine and (chloromethyl)oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 109-55-7

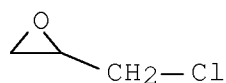
CMF C5 H14 N2



CM 2

CRN 106-89-8

CMF C3 H5 Cl O



CM 3

CRN 100-46-9

CMF C7 H9 N

H<sub>2</sub>N—CH<sub>2</sub>—Ph

IT 841312-89-8P, Benzylamine-N,N-dimethyl-1,3-propanediamine-  
Epichlorohydrin copolymer  
(treatment of semifinished leather surfaces with cationic or  
amphoteric polymers)

RE

- (1) Anon; PATENT ABSTRACTS OF JAPAN 1998, V1998(04)
- (2) Benckiser Knapsack Gmbh; DE 3530478 A 1987 HCA
- (3) Buckman Labor Inc; DE 2616220 A 1976 HCA
- (4) Nikka Chem Co Ltd; JP 9324372 A 1997
- (5) White, G; GB 419941 A 1934 HCA

L258 ANSWER 3 OF 9 HCA COPYRIGHT 2009 ACS on STN

AN 142:221588 HCA Full-text

TI Epichlorohydrin amine polymers used for treating the surface of  
leather.

IN Wolf, Gerhard; Hueffer, Stephan; Decker, Juergen; Scherr, Guenter;  
Reese, Oliver

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 18 pp.  
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
	-----				
PI	WO 2005014687	A1	20050217	WO 2004-EP8873	200408 06

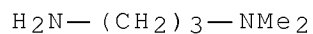
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GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,  
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,  
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,  
VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,  
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,  
DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL,  
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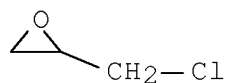
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CN 1832976	A	20060913	CN 2004-80022277	20040806
			<--	
CN 100379787	C	20080409		
BR 2004013268	A	20061010	BR 2004-13268	20040806
			<--	
ES 2279420	T3	20070816	ES 2004-763901	20040806
			<--	
US 20090094758	A1	20090416	US 2006-566375	20060130
			<--	
PRAI DE 2003-10336452	A	20030806	<--	
WO 2004-EP8873	W	20040806	<--	
AB	An aq. soln. of an epichlorohydrin amine polymer (prepd. by reacting $\geq 2$ amines with $\geq 1$ epichlorohydrin deriv.) at amine/epichlorohydrin ratios (0.8:1.2) - (1.0:1.0) is used for treating the surface of semifinished leather products and textile materials. A typical example of such copolymer prepd. by reacting 1,020 g of dimethylaminopropylamine, 267.5 g of benzylamine and 931 mL of epichlorohydrin in 1,519.1 g of water 2 h at 85° exhibits a solid content 21%, viscosity 32 mPa s and chloride content 1.19 mmol/g.			
IT	<del>841312-89-8F</del>			
	(aq. soln. of an epichlorohydrin amine polymer for treating the surface of semifinished leather products and textile materials)			
RN	841312-89-8 HCA			
CN	1,3-Propanediamine, N,N-dimethyl-, polymer with benzenemethanamine and (chloromethyl)oxirane (9CI) (CA INDEX NAME)			

CRN 109-55-7  
CMF C5 H14 N2



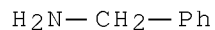
CM 2

CRN 106-89-8  
CMF C3 H5 Cl O



CM 3

CRN 100-46-9  
CMF C7 H9 N



IT 841312-89-8P

(aq. soln. of an epichlorohydrin amine polymer for treating the surface of semifinished leather products and textile materials)

RE

- (1) Buckman Labor Inc; EP 0431739 A 1991 HCA
- (2) Buckman Labor Inc; WO 9728687 A 1997 HCA
- (3) Canon Kk; EP 0738608 A 1996 HCA
- (4) Dixon, K; US 3738945 A 1973 HCA
- (5) Ray-Chaudhuri, D; US 3573095 A 1971

L258 ANSWER 4 OF 9 HCA COPYRIGHT 2009 ACS on STN

AN 133:94634 HCA Full-text

TI Amine condensation polymer bile acid sequestrants

IN Huval, Chad C.; Holmes-Farley, Stephen Randall; Whitesides, George M.



PA Geltex Pharmaceuticals, Inc., USA  
SO PCT Int. Appl., 26 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	WO 2000038664	A2	20000706	WO 1999-US30469	199912 20

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WO 2000038664 A3 20010726

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ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,  
LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU,  
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN,  
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,  
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-219558 A 19981223 <--

AB A method for binding bile salts in a mammal, comprising the step of administering to the mammal a therapeutically effective amt. of one or more amine polymers prepd. by the process comprising the step of reacting a substituted or unsubstituted aliph., arom. or aralkyl bifunctional electrophile with at least one monomer comprising a substituted or unsubstituted hydrophobic moiety and a single nucleophilic substituent which is multireactive. A bile acid sequestrant was prepd. from dodecylamine, epichlorohydrin and 1,12-diaminododecane.

IT 280559-17-3P  
(amine condensation polymer bile acid sequestrants)

RN 280559-17-3 HCA

CN 1,3-Propanediamine, N,N-dimethyl-, polymer with  
N-(2-aminoethyl)-N'-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine  
and (chloromethyl)oxirane (9CI) (CA INDEX NAME)

CM 1

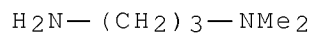
CRN 112-57-2

CMF C8 H23 N5

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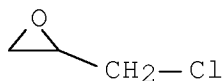
CM 2

CRN 109-55-7  
CMF C5 H14 N2



CM 3

CRN 106-89-8  
CMF C3 H5 Cl O



IT 280559-14-OP

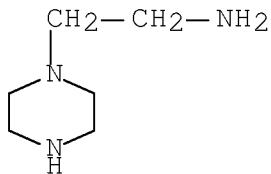
(amine condensation polymer bile acid sequestrants)

RN 280559-14-0 HCA

CN 1,2-Ethanediamine, N-(2-aminoethyl)-N'-[2-[(2-aminoethyl)amino]ethyl]-, polymer with (chloromethyl)oxirane and 1-piperazineethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 140-31-8  
CMF C6 H15 N3



CM 2

CRN 112-57-2

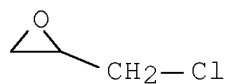
CMF C8 H23 N5



CM 3

CRN 106-89-8

CMF C3 H5 Cl O



IT 280559-17-3P

(amine condensation polymer bile acid sequestrants)

IT 280559-14-0P

(amine condensation polymer bile acid sequestrants)

RE

(1) Anon; WO 9404596 A1 HCA

(2) Anon; WO 9519384 A1 HCA

L258 ANSWER 5 OF 9 HCA COPYRIGHT 2009 ACS on STN

AN 131:279320 HCA Full-text

TI Waterproof-improving agent for ink jet printing paper and ink jet printing paper

IN Kinoshita, Hiroki; Takahashi, Toshiaki; Yamada, Masao; Gensho, Toshio

PA Nikka Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

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PI JP 11277887 A 19991012 JP 1998-87220

199803  
31

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PRAI JP 1998-87220 19980331 <--

AB The title waterproof-improving agent contains a cationic resin having a structure  $[N+R_1R_2R_5N+R_3R_4CH_2CH(OH)CH_2]_{n.2}X^-$  [ $R_1-4 = H, C_1-4$  alkyl, benzyl;  $R_5 = C_1-6$  alkylene, phenylene,  $(R_6NR_8R_7)_m$  ( $R_6, R_7 = C_1-4$  alkylene, phenylene;  $R_8 = H, C_1-4$  alkyl, benzyl);  $m = 1-4$ ;  $X^- =$  halo ion;  $n = 3-30$ ] which is prepd. by reaction of an amine compd. having  $\geq 2$  amino groups with an epihalohydrin. An ink jet printing paper is also claimed, which is obtained by coating the agent. The printing paper provides a high quality image with improved water resistance and without ink blotting.

IT 245677-39-8P, Epichlorohydrin-ethylenediamine-triethylenetetramine copolymer  
(ink-jet printing paper coated with cationic resin waterproof-improving agent)

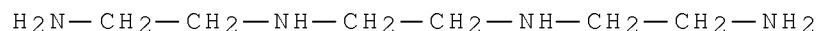
RN 245677-39-8 HCA

CN 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with (chloromethyl)oxirane and 1,2-ethanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 112-24-3

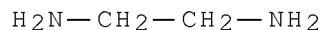
CMF C6 H18 N4



CM 2

CRN 107-15-3

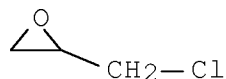
CMF C2 H8 N2



CM 3

CRN 106-89-8

CMF C3 H5 Cl O



IT 245677-39-8P, Epichlorohydrin-ethylenediamine-triethylenetetramine copolymer  
(ink-jet printing paper coated with cationic resin waterproof-improving agent)

L258 ANSWER 6 OF 9 HCA COPYRIGHT 2009 ACS on STN

AN 119:210184 HCA Full-text

OREF 119:37311a,37314a

TI Prevention of marine biofouling

IN Ikuta, Sunao; Kajiwarara, Shoichiro; Yasunaga, Tooru; Nishimura, Kunio

PA Mitsubishi Gas Chemical Co., Japan; Katayama Chemical Works Co

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	JP 05038490	A	19930219	JP 1991-199092	19910808

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JP 3126423 B2 20010122

PRAI JP 1991-199092 19910808 <--

AB Comps. supplying H<sub>2</sub>O<sub>2</sub> and water-sol. cation polymers prepd. by treating polyamines R<sub>1</sub>R<sub>2</sub>N(ANR<sub>3</sub>)nR<sub>4</sub> (R<sub>1</sub>-4 = H, C<sub>1</sub>-3 alkyl; A = C<sub>1</sub>-5 linear or branched alkylene; n = 1-5) with epihalohydrins or dihalogenoethyl ethers are added to seawater cooling system. Since low concn. use of the agents effectively controls biofouling, the water is not polluted.

IT 150673-03-3  
(biofouling control agents contg., prepn. of, for seawater cooling system)

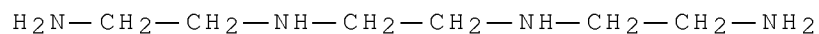
RN 150673-03-3 HCA

CN 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with (chloromethyl)oxirane and N,N-dimethyl-1,2-ethanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 112-24-3

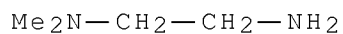
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CM 2

CRN 108-00-9

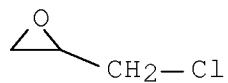
CMF C4 H12 N2



CM 3

CRN 106-89-8

CMF C3 H5 Cl O



IT 150673-03-3

(biofouling control agents contg., prepn. of, for seawater cooling system)

L258 ANSWER 7 OF 9 HCA COPYRIGHT 2009 ACS on STN

AN 112:57419 HCA Full-text

OREF 112:9873a,9876a

TI Nitrogen-containing water-soluble polymer flocculants

IN Delcour, Kees

PA Dow Chemical Co., USA

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent  
LA English  
FAN.CNT 1

	PATENT NO. ----- -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
PI	US 4647379	A	19870303	US 1985-797571	198511 13

<--

PRAI US 1985-797571 19851113 <--

AB The title flocculants are prepd. without gelation by addn. of  
epihalohydrins to piperazine (I) in the absence of strong bases to  
form water-sol. prepolymers, which are reacted with a polyamine in  
the absence of strong base. Epichlorohydrin (II) was added dropwise  
to a 60° aq. soln. of I to 1.1:1 II-I with temp. controlled at  
.apprx.100° and stirred 2 h to give a prepolymer, which was reacted  
with an aq. soln. of a  
pentaethylenehexamine-hexaethyleneheptamine mixt. to  
prepolymer/polyamine ratio 6.8. An aq. suspension (500 mL) of kaolin  
was flocculated with 0.5 mL of a 1% soln. of the polymer, giving a  
clear water layer with some floating particles.

IT 70739-85-4P

(prepn. of water-sol., in 2 steps, as flocculant)

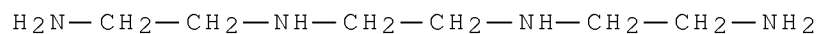
RN 70739-85-4 HCA

CN 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with  
(chloromethyl)oxirane and piperazine (9CI) (CA INDEX NAME)

CM 1

CRN 112-24-3

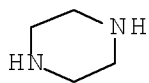
CMF C6 H18 N4



CM 2

CRN 110-85-0

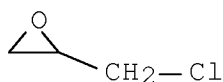
CMF C4 H10 N2



CM 3

CRN 106-89-8

CMF C3 H5 Cl O



IT 70739-85-4P

(prepn. of water-sol., in 2 steps, as flocculant)

RE

- (1) Anon; US 3391090 A
- (2) Anon; US 3523892 A
- (3) Anon; US 3917817 A HCA
- (4) Anon; US 3953330 A HCA
- (5) Anon; US 4129528 A HCA
- (6) Anon; US 4328142 A HCA
- (7) Anon; US 4482667 A HCA

L258 ANSWER 8 OF 9 HCA COPYRIGHT 2009 ACS on STN

AN 91:40164 HCA Full-text

OREF 91:6561a,6564a

TI Reactivity of polyethylene polyamines in the synthesis of anion exchangers of aminoepoxide type

AU Chetverikova, A. T.; Chetverikov, A. F.; Vakulenko, V. A.; Polikarpenko, V. P.; Pashkov, A. B.

CS USSR

SO Plasticheskie Massy (1979), (5), 6-8  
CODEN: PLMSAI; ISSN: 0554-2901

DT Journal

LA Russian

AB The purity of polyethylenepolyamine (I) (ammonia-ClCH<sub>2</sub>CH<sub>2</sub>Cl reaction product) affects the gelation time ( $\tau$ ) of epichlorohydrin-polyethylenepolyamine copolymer (AN 31G) ion exchanger. The shortest  $\tau$  ( $\leq 60$  min) is obtained for epichlorohydrin-ethylenediamine copolymer



[25014-13-5] (model compd. for AN 31G) and for copolymers prepd. from I contg. high concns. of oligomeric amines. The longest  $\tau$  (>4000 min) is obtained for epichlorohydrin-1,2-bis(dimethylamino)ethane copolymer [25988-98-1] and 1,4-diethylpiperazine-epichlorohydrin copolymer [70739-82-1] model compds.

IT 70739-85-4

(gelation time of, as ion exchanger model compd.)

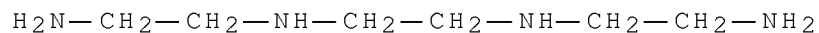
RN 70739-85-4 HCA

CN 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with (chloromethyl)oxirane and piperazine (9CI) (CA INDEX NAME)

CM 1

CRN 112-24-3

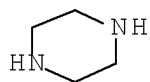
CMF C6 H18 N4



CM 2

CRN 110-85-0

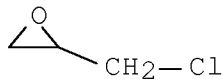
CMF C4 H10 N2



CM 3

CRN 106-89-8

CMF C3 H5 Cl O



IT 70739-85-4

(gelation time of, as ion exchanger model compd.)

L258 ANSWER 9 OF 9 HCA COPYRIGHT 2009 ACS on STN

AN 81:68354 HCA Full-text

OREF 81:10867a,10870a

TI Compositions for treatment and conditioning of the hair

IN Vanlerberghe, Guy; Sebag, Henri

PA Oreal S. A.

SO Fr. Demande, 26 pp.

CODEN: FRXXBL

DT Patent

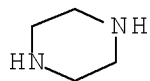
LA French

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	FR 2162025	A1	19730713	FR 1972-42279	197211 28
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	FR 2162025	B1	19760130		
	NL 7216145	A	19730601	NL 1972-16145	197211 28
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	NL 176223	B	19841016		
	NL 176223	C	19850318		
	DE 2258222	A1	19730614	DE 1972-2258222	197211 28
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	DE 2258222	B2	19820204		
	DE 2258222	C3	19820923		
	BR 7208360	D0	19730830	BR 1972-8360	197211 28
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	JP 48075732	A	19731012	JP 1972-119293	197211 28
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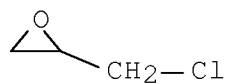
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GB 1416454	A	19751203	<-- GB 1972-54983	197211 28
AT 7210104	A	19751215	<-- AT 1972-10104	197211 28
AT 331990	B	19760910	<--	
DK 134141	B	19760920	DK 1972-5945	197211 28
CA 1026039	A1	19780207	<-- CA 1972-157715	197211 28
US 4013787	A	19770322	<-- US 1975-600188	197507 29
PRAI LU 1971-64371	A	19711129	<--	
US 1972-310088	A2	19721128	<--	
FR 1974-27030	A	19740802	<--	
AB	The active hair conditioning agents are low-mol. wt. (1,000-15,000), film-forming, cationic copolymers of piperazine and one or two straight- or branched-chain substituted or unsubstituted (<C8) alkenes, e.g., epichlorohydrin, benzylamine. They can be used in compns. of pH 3-11 in the form of free bases, salts, quaternary compds., or oxidn. products. Concns. of 0.2-3% can be used in lotions, creams, and shampoos and as adjuvants in many hair cosmetics.			
IT	52848-29-0P (prepn. of)			
RN	52848-29-0 HCA			
CN	Piperazine, polymer with benzenemethanamine and (chloromethyl)oxirane (9CI) (CA INDEX NAME)			

CRN 110-85-0  
CMF C4 H10 N2



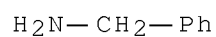
CM 2

CRN 106-89-8  
CMF C3 H5 Cl O



CM 3

CRN 100-46-9  
CMF C7 H9 N



IT 52848-29-0P  
(prepn. of)

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(CITATIONS BELOW HAVE ALL OF THE RECITED INGREDIENTS INCLUDING AT LEAST TWO DIFFERENT AMINES, BUT CANNOT GUARANTEE THAT TWO DIFFERENT AMINES ARE BOTH SIMULTANEOUSLY IN THE REACTION MIXTURE WITH THE EPICHLORHYDRIN--THAT MAY BE OR MAY NOT BE TRUE DEPENDING ON THE SPECIFIC WORDING IN THE CITATION.)

=> D L276 1-35 BIB ABS HITSTR HITIND

L276 ANSWER 1 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 145:489940 HCA Full-text

TI Dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as drug delivery, transfection, and diagnostics

IN Tomalia, Donald A.; Swanson, Douglas R.; Huang, Baohua; Pulgam, Verra Reddy; Heinzelmann, Joseph R.; Svenson, Sonke; Reyna, Lori A.; Zhuravel, Michael A.; Chauhan, Abhay Singh; Demattei, Cordell R.

PA Dendritic Nanotechnologies, Inc., USA

SO PCT Int. Appl., 306 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2006115547	A2	20061102	WO 2005-US47635	20051221

WO 2006115547 A3 20090604

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

WO 2006065266	A2	20060622	WO 2005-US13864	20050420
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WO 2006065266 A3 20060914

WO 2006065266 A9 20061221

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,

SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,  
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 BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,  
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

AU 2005331023 A1 20061102 AU 2005-331023

200512  
21

CA 2598430 A1 20061102 CA 2005-2598430

200512  
21

EP 1877103 A2 20080116 EP 2005-857843

200512  
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R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,  
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 TR, AL, BA, HR, MK, YU

BR 2005012282 A 20080226 BR 2005-12282

200512  
21

JP 2008545621 T 20081218 JP 2008-507644

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IN 2006CN04302 A 20070615 IN 2006-CN4302

200611  
22

US 20070298006 A1 20071227 US 2006-630044

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KR 2007066902 A 20070627 KR 2006-131202

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MX 2007010402 A 20080122 MX 2007-10402

200708  
24

CN 101443048 A 20090527 CN 2005-80049281

200709  
26

PRAI WO 2005-US13864 A 20050420  
 US 2004-563659P P 20040420 <--  
 WO 2005-US47635 W 20051221

AB Dendritic **polymers** with enhanced amplification and interior  
 functionality for use in deemulsifiers, wet strength agents, proton  
 scavengers, calibration stds., size selective membranes, paint  
 additives, drug delivery, transfection, and diagnostics are prepd. by

use of fast, reactive ring-opening chem. combined with the use of branch cell reagents in a controlled way to rapidly and precisely build dendritic structures, generation by generation, with cleaner chem., often single products, lower excesses of reagents, lower levels of diln., and lower cost.

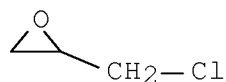
IT 106-89-8, Epichlorohydrin, reactions 107-15-3, Ethylene diamine, reactions 110-85-0, Piperazine, reactions 111-40-0, Diethylenetriamine 140-31-8, N-(2-Aminoethyl)piperazine 140-31-8D, 1-(2-Aminoethyl)piperazine, reaction products with dendrimers

RL: RCT (Reactant); RACT (Reactant or reagent)

(dendritic polymers with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

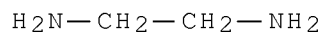
RN 106-89-8 HCA

CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



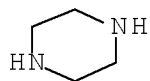
RN 107-15-3 HCA

CN 1,2-Ethanediamine (CA INDEX NAME)



RN 110-85-0 HCA

CN Piperazine (CA INDEX NAME)

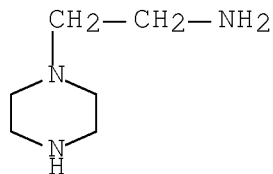


RN 111-40-0 HCA

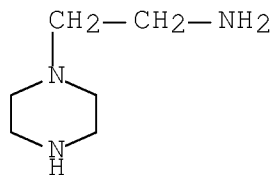
CN 1,2-Ethanediamine, N1-(2-aminoethyl)- (CA INDEX NAME)



RN 140-31-8 HCA  
CN 1-Piperazineethanamine (CA INDEX NAME)



RN 140-31-8 HCA  
CN 1-Piperazineethanamine (CA INDEX NAME)



CC 37~3 (Plastics Manufacture and Processing)  
Section cross-reference(s): 63  
ST ~~polymer~~ dendritic prepn; dendrimer drug delivery  
transfection diagnostics  
IT Inks  
(Electronic; dendritic ~~polymers~~ with enhanced  
amplification and interior functionality for use in electronic  
inks)  
IT Polyethers  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
(Preparation); RACT (Reactant or reagent)  
(azide group-contg., dendritic; dendritic ~~polymers~~ with  
enhanced amplification and interior functionality for use in  
eukaryotic cells transfecting)  
IT Ions  
(carrier; dendritic ~~polymers~~ with enhanced  
amplification and interior functionality for use as metal ion  
carriers)  
IT Drug delivery systems  
(carriers; dendritic ~~polymers~~ with enhanced  
amplification and interior functionality for use in various  
applications, such as deemulsifiers, drug delivery, transfection,



and diagnostics)

IT Medical goods  
(catheters; dendritic polymers with enhanced amplification and interior functionality for use in catheters)

IT Dental materials and appliances  
(composites; dendritic polymers with enhanced amplification and interior functionality for use in dental compn.)

IT Catalyst supports  
(dendritic polymers with enhanced amplification and interior functionality for use as catalyst carriers)

IT Quantum dot devices  
(dendritic polymers with enhanced amplification and interior functionality for use as quantum dots)

IT Adhesives  
(dendritic polymers with enhanced amplification and interior functionality for use in adhesives)

IT Antibacterial agents  
(dendritic polymers with enhanced amplification and interior functionality for use in antibacterials)

IT Biomarkers  
(dendritic polymers with enhanced amplification and interior functionality for use in biomarkers)

IT Carpets  
(dendritic polymers with enhanced amplification and interior functionality for use in carpets)

IT Ceramics  
(dendritic polymers with enhanced amplification and interior functionality for use in ceramics)

IT Textiles  
(dendritic polymers with enhanced amplification and interior functionality for use in cloth)

IT Coating materials  
(dendritic polymers with enhanced amplification and interior functionality for use in coatings)

IT Cosmetics  
(dendritic polymers with enhanced amplification and interior functionality for use in cosmetics)

IT Deodorants  
(dendritic polymers with enhanced amplification and interior functionality for use in deodorants)

IT Disinfectants  
(dendritic polymers with enhanced amplification and interior functionality for use in disinfectants)

IT Optical imaging devices  
(dendritic polymers with enhanced amplification and interior functionality for use in displays)

IT Electrodes  
(dendritic **polymers** with enhanced amplification and interior functionality for use in electrodes)

IT Energy storage  
(dendritic **polymers** with enhanced amplification and interior functionality for use in energy storage)

IT Eukaryota  
(dendritic **polymers** with enhanced amplification and interior functionality for use in eukaryotic cells transfecting)

IT Fiber optics  
(dendritic **polymers** with enhanced amplification and interior functionality for use in fiber optics)

IT Concrete  
(dendritic **polymers** with enhanced amplification and interior functionality for use in fiberglass)

IT Glass fibers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dendritic **polymers** with enhanced amplification and interior functionality for use in fiberglass)

IT Fibers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dendritic **polymers** with enhanced amplification and interior functionality for use in fibers)

IT Filtration  
(dendritic **polymers** with enhanced amplification and interior functionality for use in filtration)

IT Flavoring materials  
(dendritic **polymers** with enhanced amplification and interior functionality for use in flavorings)

IT Fuel cells  
(dendritic **polymers** with enhanced amplification and interior functionality for use in fuel cells)

IT Glass  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dendritic **polymers** with enhanced amplification and interior functionality for use in glass)

IT Electric insulators  
(dendritic **polymers** with enhanced amplification and interior functionality for use in interlayer dielec.)

IT Latex  
(dendritic **polymers** with enhanced amplification and interior functionality for use in latex)

IT Electroluminescent devices  
(dendritic **polymers** with enhanced amplification and interior functionality for use in light emitting diodes)

IT Magnetic memory devices  
(dendritic **polymers** with enhanced amplification and

interior functionality for use in magnetic storage systems)

IT Medical goods  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in medical devices)

IT Metals  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in metal)

IT Molecular electronics  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in mol. electronics)

IT Paper  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in papers)

IT Photonics  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in photonics)

IT Photoresists  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in photoresist)

IT Pigments, nonbiological  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in pigments)

IT Rubber  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in rubber)

IT Sensors  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in sensors)

IT Containers  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in stones)

IT Stone (construction material)  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in stones)

IT Electrophotographic toners  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in toners)

IT Transistors  
 (dendritic **polymers** with enhanced amplification and  
 interior functionality for use in transistors)

IT Dendritic **polymers**  
 RL: IMF (Industrial manufacture); RCT (Reactant); THU (Therapeutic  
 use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or  
 reagent); USES (Uses)

(dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

IT Waveguides  
 (dendritic **polymers** with enhanced amplification and interior functionality for use in waveguides)

IT Wood  
 (dendritic **polymers** with enhanced amplification and interior functionality for use in wood)

IT Encapsulants  
 (drug; dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

IT Polyethers  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (epoxy, dendritic; dendritic **polymers** with enhanced amplification and interior functionality for use in eukaryotic cells transfecting)

IT Drug delivery systems  
 (implants; dendritic **polymers** with enhanced amplification and interior functionality for use in stones)

IT Absorbents  
 (microwave, IR; dendritic **polymers** with enhanced amplification and interior functionality for use in microwave or IR absorbers)

IT Particles  
 (paramagnetic, carrier; dendritic **polymers** with enhanced amplification and interior functionality for use as paramagnetic particles carriers)

IT Semiconductor materials  
 (particles carriers; dendritic **polymers** with enhanced amplification and interior functionality for use as semiconductor particle carriers)

IT Polyamines  
 RL: IMF (Industrial manufacture); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (polyamide-, dendrimers; dendritic **polymers** with enhanced amplification and interior functionality for use in eukaryotic cells transfecting)

IT Polyethers  
 RL: IMF (Industrial manufacture); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (polyamide-, dendritic; dendritic **polymers** with enhanced amplification and interior functionality for use in

eukaryotic cells transfecting)

IT Dendritic **polymers**  
 RL: IMF (Industrial manufacture); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (polyamide-polyamines; dendritic **polymers** with enhanced amplification and interior functionality for use in eukaryotic cells transfecting)

IT Polyamides  
 RL: IMF (Industrial manufacture); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (polyamine-, dendrimers; dendritic **polymers** with enhanced amplification and interior functionality for use in eukaryotic cells transfecting)

IT Polyesters  
 Polyethers  
 RL: IMF (Industrial manufacture); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (polyamine-, dendritic; dendritic **polymers** with enhanced amplification and interior functionality for use in eukaryotic cells transfecting)

IT Polyamines  
 Polythioethers  
 RL: IMF (Industrial manufacture); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (polyester-, dendritic; dendritic **polymers** with enhanced amplification and interior functionality for use in eukaryotic cells transfecting)

IT Epoxy **resins**  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (polyether-, dendritic; dendritic **polymers** with enhanced amplification and interior functionality for use in eukaryotic cells transfecting)

IT Polyamides  
 Polyamines  
 RL: IMF (Industrial manufacture); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (polyether-, dendritic; dendritic **polymers** with enhanced amplification and interior functionality for use in eukaryotic cells transfecting)

IT Polyesters  
 RL: IMF (Industrial manufacture); RCT (Reactant); THU (Therapeutic

use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (polythioether-, dendritic; dendritic **polymers** with enhanced amplification and interior functionality for use in eukaryotic cells transfecting)

IT Calibration  
 (size; dendritic **polymers** with enhanced amplification and interior functionality for use in size calibration)

IT Medical goods  
 (stents; dendritic **polymers** with enhanced amplification and interior functionality for use in stones)

IT Lithography  
 (submicron; dendritic **polymers** with enhanced amplification and interior functionality for use in nanolithog.)

IT Chromatography  
 (supports; dendritic **polymers** with enhanced amplification and interior functionality for use as supports in sepns.)

IT 914111-87-8 1057290-29-5  
 RL: PRPH (Prophetic)  
 (Dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as drug delivery, transfection, and diagnostics)

IT 7440-57-5, Gold, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (dendrimer core; dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

IT 867178-38-9P, CyTE 807  
 RL: BSU (Biological study, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation)  
 (dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

IT 757960-10-4, IR-806  
 RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)  
 (dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

IT 80529-93-7  
 RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)  
 (dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

IT 893412-07-2P 914111-49-2P 914111-51-6P 914111-53-8P

RL: IMF (Industrial manufacture); PREP (Preparation)

(dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

IT 120-43-4DP, reaction products with pentaerythritol tetraglycidyl ether and polyethylenimine 1471-18-7P, Pentaerythritol tetraallyl ether 3126-63-4DP, reaction products with polyethylenimine and Et piperazinecarboxylate 3126-63-4P, Pentaerythritol tetraglycidyl ether 9002-98-6DP, reaction products with pentaerythritol tetraglycidyl ether and Et piperazinecarboxylate 13236-00-5P, Pentaerythritol triglycidyl ether 25805-17-8DP, hydrolyzed, end-capped with dendritic poly(etherhydroxylamine) 49859-90-7P, 1-Imidazolidineethanamine 133466-62-3P 148193-00-4P, Bis(2-piperazinoethyl) disulfide 723342-61-8P 893411-65-9P 893411-66-0P 893411-67-1P 893411-68-2P 893411-69-3P 893411-71-7P 893411-72-8DP, reaction products with PAMAM and 1-(aminoethyl)piperazine 893411-73-9P 893411-74-0P 893411-75-1P 893411-76-2P 893411-77-3P 893411-78-4P 893411-79-5P 893411-80-8P 893411-81-9P 893411-82-0P 893411-83-1P 893411-84-2P 893411-85-3P 893411-86-4P 893411-87-5P 893411-88-6P 893411-89-7P 893411-90-0P 893411-91-1P 893411-92-2P 893411-93-3P 893411-94-4P 893411-95-5P 893411-96-6P 893411-97-7P 893411-98-8P 893411-99-9P 893412-00-5P 893412-01-6P 893412-02-7P 893412-03-8P 893412-04-9P 893412-05-0P 893412-06-1P 893412-08-3P 893412-09-4P 893412-10-7P 893412-11-8P 893412-12-9P 893412-13-0P 893412-14-1P 893412-15-2P 893412-16-3P 893412-18-5P 893412-21-0P 893412-22-1P 893412-23-2P 911415-47-9P 914111-39-0P 914111-40-3P 914111-41-4P 914111-43-6P 914111-44-7P 914111-46-9P 914111-47-0P 914111-48-1P 914111-50-5P 914111-54-9P 914111-55-0P 914111-56-1P 914111-57-2P 914111-58-3P 914111-59-4P 914111-60-7P 914111-61-8P 914111-63-0P 914111-64-1P 914111-65-2P 914111-66-3P 914111-67-4P 914111-69-6P 914111-70-9P 914111-71-0P 914111-72-1P 914111-73-2P 914111-74-3P 914111-78-7P 914111-79-8P 914111-80-1P 914111-81-2P 914111-82-3P 914111-83-4P 914111-84-5P 914111-86-7P 914111-87-8DP, reaction products with gold nanoparticles 914301-40-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent)

(dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

IT 130920-81-9P 893411-77-3DP, reaction products with Et oxazoline homopolymer 893411-79-5DP, reaction products with glycidol 914111-62-9P 914111-68-5P 914111-75-4DP, reaction products with

dendrimer contg. Et ester surface group and

1-(2-aminoethyl)piperazine 914111-76-5P 914111-77-6P

914301-79-4P 914301-80-7P

RL: IMF (Industrial manufacture); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

IT 50-00-0, Formaldehyde, reactions 62-56-6, Thiourea, reactions 75-55-8, 2-Methylaziridine 96-33-3, Methyl acrylate 103-49-1, Dibenzylamine 106-89-8, Epichlorohydrin, reactions 106-95-6, Allyl bromide, reactions 106-96-7, Propargyl bromide 107-15-3, Ethylene diamine, reactions 107-96-0, 3-Mercaptopropionic acid 108-10-1, 4-Methyl-2-pentanone 108-24-7, Acetic anhydride 110-85-0, Piperazine, reactions 111-40-0, Diethylenetriamine 111-41-1, (2-Hydroxyethyl) ethylenediamine 111-42-2, Diethanolamine, reactions 115-77-5, Pentaerythritol, reactions 124-02-7, Diallyl amine 124-09-4, Hexamethylenediamine, reactions 140-31-8, N-(2-Aminoethyl)piperazine 140-31-8D, 1-(2-Aminoethyl) piperazine, reaction products with dendrimers 141-43-5, Ethanolamine, reactions 420-12-2, Ethylene sulfide 534-26-9, 2-Methyl-2-imidazoline 628-87-5, Iminodiacetonitrile 762-42-5, Dimethylacetylene dicarboxylate 937-14-4, m-Chloroperoxy benzoic acid 1471-17-6, Pentaerythritol triallyl ether 2095-03-6, Bis(4-glycidyloxyphenyl)methane 2451-62-9, Tris(2,3-Epoxypropyl)isocyanurate 3454-29-3, Trimethylolpropane triglycidyl ether 4097-89-6, Tris(2-aminoethyl)amine 6290-05-7, Diethyl iminodiacetate 7681-57-4, Sodium meta-Bisulfite 10471-78-0 10595-60-5 14002-32-5, Tris(hydroxymethylamine)( 14283-07-9, Lithium tetrafluoroborate 15625-89-5, Trimethylolpropane triacrylate 17261-34-6 17557-23-2, Neopentyl glycol diglycidyl ether 26628-22-8, Sodium azide 28768-32-3 66072-38-6, Triphenylolmethane triglycidylether 67186-35-0, Acryloxymethyltrimethylsilane 101567-38-8 139611-97-5 566916-00-5 893412-17-4 914111-42-5 914111-45-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

IT 53-86-1, Indomethacin 15663-27-1, Cisplatin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(dendritic **polymers** with enhanced amplification and interior functionality for use in various applications, such as deemulsifiers, drug delivery, transfection, and diagnostics)

IT 26937-01-9D, PAMAM, reaction products with dendrimer contg. Et ester



surface groups and 1-(aminoethyl)piperazine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(dendritic; dendritic **polymers** with enhanced  
amplification and interior functionality for use in various  
applications, such as deemulsifiers, drug delivery, transfection,  
and diagnostics)

IT 914111-85-6P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(hyper-branched; dendritic **polymers** with enhanced  
amplification and interior functionality for use in various  
applications, such as deemulsifiers, drug delivery, transfection,  
and diagnostics)

L276 ANSWER 2 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 145:83842 HCA Full-text

TI Dendritic **polymers** with enhanced amplification and  
interior functionality

IN Tomalia, Donald A.; Swanson, Douglas R.; Huang, Baohua; Pulgam,  
Veera Reddy

PA Dendritic Nanotechnologies, Inc., USA

SO PCT Int. Appl., 143 pp.  
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2006065266	A2	20060622	WO 2005-US13864	200504 20

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WO 2006065266 A3 20060914

WO 2006065266 A9 20061221

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CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
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KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,  
MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,  
SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,  
US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,  
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BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG,  
BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,  
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

AU 2005317193 A1 20060622 AU 2005-317193

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CN 1946772	A	20070411	CN 2005-80012562	200504 20
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AU 2005331023	A1	20061102	AU 2005-331023	200512 21
CA 2598430	A1	20061102	CA 2005-2598430	200512 21
WO 2006115547	A2	20061102	WO 2005-US47635	200512 21
WO 2006115547	A3	20090604		
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,				

ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA  
 EP 1877103 A2 20080116 EP 2005-857843

200512  
 21

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,  
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 TR, AL, BA, HR, MK, YU  
 BR 2005012282 A 20080226 BR 2005-12282

200512  
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JP 2008545621 T 20081218 JP 2008-507644

200512  
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US 20070244296 A1 20071018 US 2006-594776

200609  
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MX 2006012207 A 20070213 <--  
 MX 2006-12207

200610  
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KR 2007015432 A 20070202 <--  
 KR 2006-724191

200611  
 17

KR 843362 B1 20080702 <--  
 IN 2006CN04277 A 20070629 IN 2006-CN4277

200611  
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IN 2006CN04302 A 20070615 <--  
 IN 2006-CN4302

200611  
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MX 2007010402 A 20080122 MX 2007-10402

200708  
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CN 101443048 A 20090527 CN 2005-80049281

200709  
 26

PRAI US 2004-563659P P 20040420 <--  
 WO 2005-US13864 W 20050420  
 WO 2005-US47635 W 20051221

AB Dendritic polymers with surface group no. defined by the equation  $z = N_c N_b G$  [G = no. of concentric branched cell shells surrounding the core,  $N_b$  = branched cell multiplicity,  $N_c$  (core multiplicity) = 1-1000] and interior functionality 0 or 1-1000 are disclosed. These dendritic polymer are made by use of fast, reactive ring opening

chem. (or other fast reactions) combined with the use of branch cell reagents in a controlled way to rapidly and precisely build dendrimer structures, generation by generation, with precise structures with cleaner chem., typically single products, lower excesses of reagents, lower levels of diln., higher capacity method, more easily scale to com. dimensions, new ranges of materials, and lower cost. The dendrimer compn. prepd. have novel internal functionality, greater stability, e.g., thermal stability and less or no reverse Michaels reaction, and which reach encapsulation surface densities at lower generations. These reactions of polyfunctional branch cell reagents with polyfunctional surfaces do not create gelled materials. A typical G1 dendrimer was manufd. by reaction of 6.32 g Et N-piperazinecarboxylate 2 h 20 min with 3.6 g pentaerythritol tetraglycidyl ether (I) in MeOH, removal other the carboethoxy groups by KOH at 85-90° in water-MeOH soln., reaction of 1.65 g 2nd intermediate 2 days with 5.05 g I in MeOH, and removal of the carboethoxy groups by KOH at 85-90° in water-MeOH soln.

IT 106-89-8, Epichlorohydrin, reactions 107-15-3,  
Ethylenediamine, reactions 110-85-0, Piperazine, reactions  
111-40-0, Diethylenetriamine 140-31-8,

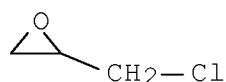
1-(2-Aminoethyl)piperazine

RL: RCT (Reactant); RACT (Reactant or reagent)

(precursor; dendritic polymers with enhanced surface  
group content and interior functionality)

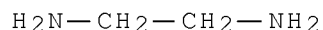
RN 106-89-8 HCA

CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



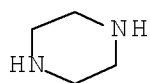
RN 107-15-3 HCA

CN 1,2-Ethanediamine (CA INDEX NAME)



RN 110-85-0 HCA

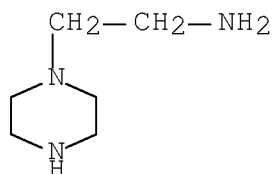
CN Piperazine (CA INDEX NAME)



RN 111-40-0 HCA  
 CN 1,2-Ethanediamine, N1-(2-aminoethyl)- (CA INDEX NAME)



RN 140-31-8 HCA  
 CN 1-Piperazineethanamine (CA INDEX NAME)



CC 35~7 (Chemistry of Synthetic High Polymers)  
 ST dendritic **polymer** surface functionality enhancement;  
 interior functionality enhancement dendritic **polymer**;  
 ethyl piperazinecarboxylate pentaerythritol tetraglycidyl ether  
 dendrimer manuf  
 IT Dendritic **polymers**  
 RL: IMF (Industrial manufacture); PRP (Properties); PREP  
 (Preparation)  
 (dendritic **polymers** with enhanced surface group content  
 and interior functionality)  
 IT Agriculture and Agricultural chemistry  
 (dendritic **polymers** with enhanced surface group content  
 and interior functionality for agricultural formulations)  
 IT Drugs  
 (dendritic **polymers** with enhanced surface group content  
 and interior functionality for pharmaceutical compns.)  
 IT Polythioethers  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (polyamine-; dendritic **polymers** with enhanced surface  
 group content and interior functionality)  
 IT Polyethers, preparation

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
 (polyamine-; dendritic **polymers** with enhanced surface group content and interior functionality)

IT Polyamines  
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
 (polyether-; dendritic **polymers** with enhanced surface group content and interior functionality)

IT Polyamines  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (polythioether-; dendritic **polymers** with enhanced surface group content and interior functionality)

IT 893411-68-2P 893411-71-7P 893411-73-9P 893411-74-0P  
 893411-75-1P 893411-76-2P 893411-84-2P 893411-85-3P  
 893411-86-4P 893411-87-5P 893411-89-7P 893411-90-0P  
 893411-91-1P 893411-93-3P 893411-94-4P 893411-96-6P  
 893411-97-7P 893411-98-8P 893412-00-5P 893412-01-6P  
 893412-02-7P 893412-04-9P 893412-05-0P 893412-09-4P  
 893412-10-7P 893412-11-8DP, reaction products with mercaptoethanol  
 893412-13-0P 893412-14-1P 893412-15-2P 893412-16-3P  
 893412-18-5P 893412-19-6P 893412-20-9P 893412-22-1P  
 893412-23-2P 894098-23-8P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (dendritic **polymers** with enhanced surface group content and interior functionality)

IT 80529-93-7DP, Gd-DTPA, complexes with dendritic **polymers**  
 893411-78-4DP, complexes with Gd-DTPA 893411-88-6DP, complexes with Gd-DTPA 893412-24-3P  
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
 (dendritic **polymers** with enhanced surface group content and interior functionality)

IT 893411-67-1P 893411-70-6P 893411-78-4P 893411-79-5P  
 893411-80-8P 893411-81-9P 893411-82-0P 893411-83-1P  
 893411-88-6P, Ethyl N-piperazinecarboxylate-pentaerythritol tetraglycidyl ether **copolymer** 893411-92-2P  
 893411-95-5P 893411-99-9P 893412-03-8P 893412-11-8P  
 893412-12-9P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (dendritic **polymers** with enhanced surface group content and interior functionality)

IT 3126-63-4P, Pentaerythritol tetraglycidyl ether 130920-81-9P  
 893411-65-9P 893411-66-0P 893411-69-3P 893411-72-8P  
 893411-77-3P 893412-06-1P 893412-07-2P 893412-08-3P  
 893412-21-0P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
(Preparation); RACT (Reactant or reagent)  
(precursor; dendritic polymers with enhanced surface  
group content and interior functionality)

IT 60-24-2, Mercaptoethanol 75-55-8, 2-Methylaziridine 77-86-1,  
TRIS 96-33-3, Methyl acrylate 106-89-8, Epichlorohydrin,  
reactions 107-15-3, Ethylenediamine, reactions 108-10-1,  
4-Methyl-2-pentanone 110-85-0, Piperazine, reactions  
110-91-8, Morpholine, reactions 111-40-0,  
Diethylenetriamine 111-42-2, Diethanolamine, reactions 115-77-5,  
Pentaerythritol, reactions 120-43-4, Ethyl N-piperazinecarboxylate  
124-02-7, Diallylamine 124-09-4, Hexamethylenediamine, reactions  
140-31-8, 1-(2-Aminoethyl)piperazine 141-43-5,  
Ethanolamine, reactions 617-52-7, Dimethyl itaconate 2095-03-6,  
Bis(4-glycidyloxyphenyl)methane 2451-62-9, Tris(2,3-epoxypropyl)  
isocyanurate 3454-29-3, Trimethylolpropane triglycidyl ether  
5026-74-4, N,N-Diglycidyl-4-glycidyloxyaniline 6290-05-7, Diethyl  
iminodiacetate 10471-78-0, 2-Isopropenyl-2-Oxazoline 15625-89-5,  
Trimethylolpropane triacrylate 28768-32-3,  
4,4'-Methylenebis(N,N-diglycidylaniline) 43224-82-4 60457-62-7  
139611-97-5 566916-00-5 893412-17-4

RL: RCT (Reactant); RACT (Reactant or reagent)  
(precursor; dendritic polymers with enhanced surface  
group content and interior functionality)

L276 ANSWER 3 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 143:175508 HCA Full-text

TI Complexing sorbent, method for the production and use thereof

IN Polosin, Vladimir Mikhailovich; Krasavin, Igor Alexandrovich;  
Orlova, Galina Vladimirovna; Visokova, Nina Nikolaevna; Dolzhnikova,  
Elena Nikolaevna; Ryabokobilko, Yuri Sergeevich; Evdokimova, Natalia  
Nikolaevna; Belyakov, Evgeni Alexandrovich

PA Russia

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA Russian

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2005068070	A1	20050728	WO 2005-RU12	20050117

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GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,  
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
 MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, SC, SD, SE,  
 SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,  
 VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,  
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,  
 DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC,  
 NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA,  
 GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 RU 2270056 C2 20060220 RU 2004-100851

200401  
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PRAI RU 2004-100851 A 20040115 <--

AB The invention relates to applied chem., in particular to a complexing sorbent contg. an active sorbing layer which is immobilized on a solid carrier embodied as a cellulose or a synthetic polymer and comprises ethylenediamine or diethylenetriamine or triethylenetetramine or tetraethylenepentamine or polyethylenepolyamine or polyethylenepolyamine with copolymers, condensed with complexons, selected from a group contg. carboxyl-contg. complexons with fragments -NHCH<sub>2</sub>COOH, -N(CH<sub>2</sub>COOH)<sub>2</sub>, complexons with phosphonic groups arrangement -N(CH<sub>2</sub>PO<sub>3</sub>H<sub>2</sub>)<sub>2</sub>, hydroxyl-contg. complexons with fragments =NCH<sub>2</sub>CH<sub>2</sub>OH, HOCH<sub>2</sub>CH<sub>2</sub>-N-CH<sub>2</sub>COOH, HOCH<sub>2</sub>CH<sub>2</sub>-N-CH<sub>2</sub>PO(OH)<sub>2</sub>. Methods for producing inventive sorbent and using said sorbent for removing ions of a variety of valencies of different metals and metalloids from aq. media at a large range of pH assocd. with a subsequent regeneration of said sorbent are also disclosed. Monovalent cations, such as sodium, potassium, and lithium, did not sorb well.

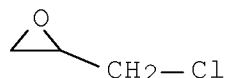
IT 106-89-8, Epichlorohydrin, reactions 107-15-3,  
 Ethylenediamine, reactions 111-40-0, Diethylenetriamine  
 112-57-2, Tetraethylenepentamine

RL: RCT (Reactant); RACT (Reactant or reagent)

(complexing sorbent, method for prodn. and use thereof for cation exchange)

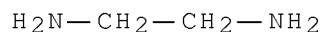
RN 106-89-8 HCA

CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)





RN 107-15-3 HCA  
CN 1,2-Ethanediamine (CA INDEX NAME)



RN 111-40-0 HCA  
CN 1,2-Ethanediamine, N1-(2-aminoethyl)- (CA INDEX NAME)



RN 112-57-2 HCA  
CN 1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]- (CA INDEX NAME)



IT 7647-01-0, Hydrochloric acid, reactions  
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)  
(for regeneration; complexing sorbent, method for prodn. and use thereof for cation exchange)  
RN 7647-01-0 HCA  
CN Hydrochloric acid (CA INDEX NAME)

HCl

IC ICM B01J020-26  
ICS B01J020-24; B01J020-32; C02F001-28  
CC 48-1 (Unit Operations and Processes)  
Section cross-reference(s): 35, 38, 79  
ST complexation sorbent immobilized active layer cation exchange cellulose resin  
IT Polymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(carrier; complexing sorbent, method for prodn. and use thereof)

for cation exchange)

IT Phenolic **resins**, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (complexing sorbent, method for prodn. and use thereof for cation exchange)

IT Acids, reactions  
 RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)  
 (for metal ion elution and **resin** regeneration; complexing sorbent, method for prodn. and use thereof for cation exchange)

IT Polyamines  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyethylene-, reaction products, reaction products with styrene-divinyl benzene- based **copolymers**; complexing sorbent, method for prodn. and use thereof for cation exchange)

IT Phenolic **resins**, uses  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (sulfo-contg., reaction products with propylene-ethyleneimine **copolymers**, complexes with Phosphonomethylglycine; complexing sorbent, method for prodn. and use thereof for cation exchange)

IT 9003-70-7DP, Styrene-divinyl benzene **copolymer**, sulfonated, chlorided, hydroxymethylated, or chloromethylated, reaction products with polyethylenepolyamines and combinations of amino-contg. carboxylic and phosphonic acids  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (complexing sorbent)

IT 60-00-4, Ethylenediaminetetraacetic acid, reactions 67-43-6, Diethylenetriamine-N,N,N',N'',N'''-pentaacetic acid 106-89-8, Epichlorohydrin, reactions 107-15-3, Ethylenediamine, reactions 111-40-0, Diethylenetriamine 112-57-2, Tetraethylenepentamine 139-13-9, Nitrilotriacetic acid 1071-83-6, Phosphonomethylglycine 1310-73-2, Sodium hydroxide, reactions 2809-21-4, (1-Hydroxyethylidene)diphosphonic acid 5835-28-9, N-(2-Hydroxyethyl)glycine 5994-61-6, N-(Phosphonomethyl)iminodiacetic acid 9003-35-4D, Phenol-formaldehyde **copolymer**, sulfonated 9003-70-7D, Styrene-divinyl benzene **copolymer**, sulfonated, chlorided, hydroxymethylated, or chloromethylated 17261-34-6, Iminodimethylenephosphonic acid 53825-97-1, N-(2-Hydroxyethyl)diethylenetriamine-N,N',N'',N'''-tetraacetic acid 861001-94-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)

(complexing sorbent, method for prodn. and use thereof for cation exchange)

IT 139-13-9DP, Nitrilotriacetic acid, complexes with sulfochlorinated styrene-divinyl benzene-aziridine graft **copolymer**  
1071-83-6DP, Phosphonomethylglycine, complexes with phenol-formaldehyde- propylene-aziridine graft **copolymer**  
2809-21-4DP, (1-Hydroxyethylidene)diphosphonic acid, reaction products with cellulose- polyaziridine- epichlorohydrin **copolymer** 5994-61-6DP, N-(Phosphonomethyl)iminodiacetic acid, complexes with sulfonated styrene-divinyl benzene-triethylenetetraamine graft **copolymer**  
9004-34-6DP, Cellulose, reaction products with 17261-34-6DP, Iminodimethylenephosphonic acid, reaction products with epichlorohydrin-cellulose-diethylenetriamine **copolymer**  
53825-97-1DP, N-(2-Hydroxyethyl)diethylenetriamine-N,N',N'',N'''-tetraacetic acid, complexes with hydroxymethylated styrene-divinyl benzene-triethylenetetraamine graft **copolymer**  
183428-29-7DP, chloromethylated, complexes with N-(2-Hydroxyethyl)glycine, and sulfochlorinated, complexes with nitrilotriacetic acid 861001-88-9P 861001-89-0DP, reaction products with (1-Hydroxyethylidene)diphosphonic acid 861001-90-3P 861001-92-5P 861001-93-6DP, reaction products with iminodimethylenephosphonic acid 861001-94-7DP, reaction products with sulfonated- chlorided styrene-divinyl benzene **copolymer**  
861001-95-8DP, hydroxymethylated, complexes with N-(2-hydroxyethyl)diethylenetriamine- N,N',N'',N'''-tetraacetic acid and sulfonated, complexes with N-(Phosphonomethyl)iminodiacetic acid 861001-96-9DP, complexes with Phosphonomethylglycine  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(complexing sorbent, method for prodn. and use thereof for cation exchange)

IT 7647-01-0, Hydrochloric acid, reactions  
7697-37-2, Nitric acid, reactions  
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)  
(for regeneration; complexing sorbent, method for prodn. and use thereof for cation exchange)

IT 5835-28-9DP, N-(2-Hydroxyethyl)aminoacetic acid, complexes with chloromethylated styrene-divinyl benzene- aziridine graft **copolymer** and other N- derivs. and complexes  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(immobilized on carrier; complexing sorbent, method for prodn. and use thereof for cation exchange)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L276 ANSWER 4 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 143:59847 HCA

TI Preparation of novel quinoline derivatives for treating hyperproliferative disorders

L276 ANSWER 5 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 142:316854 HCA

TI Preparation of substituted fused pyrimidine-4(3H)-one compounds with affinity for liver X receptors

L276 ANSWER 6 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 142:297989 HCA

TI Preparation of substituted indoles as inhibitors of poly(ADP-ribose) **polymerase** (PARP)

L276 ANSWER 7 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 142:219283 HCA

TI Preparation of 1H-imidazo[4,5-c]pyridin-2-yl derivatives as inhibitors of Akt activity

L276 ANSWER 8 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 142:204494 HCA Full-text

TI Preparation of a new adsorbent for removal of low density lipoprotein

AU Fu, Guo-Qi; Chen, Xin-Fu; Yuan, Zhi; Liu, Bin; Shen, Bin; He, Bing-Lin

CS State Key Lab. Functional Polymer Mater. Adsorption and Separation, Inst. Polymer Chem., Nankai Univ., Tianjin, 300071, Peop. Rep. China

SO Gaodeng Xuexiao Huaxue Xuebao (2004), 25(6), 1183-1185

CODEN: KTHPDM; ISSN: 0251-0790

PB Gaodeng Jiaoyu Chubanshe

DT Journal

LA Chinese

AB On the basis of low d. lipoprotein (LDL) adsorption on matrix-bound tryptophan, a new LDL adsorbent was prepd. with indole-3-acetic acid (IAA) as a ligand, which had indole group in its chem. structure just as tryptophan. Macroporous polyvinyl alc. (PVA) beads were obtained by suspension **copolymn.** of vinyl acetate and triallyl isocyanurate in the presence of porogen, followed by subsequent alcoholysis step. The PVA beads were allowed to react with epichlorohydrin, and the thus obtained epoxidized beads were then reacted with several polyamines to introduce space arms with different lengths. IAA was then coupled to the spacer-attaching beads by using DCC/HOBt method employed commonly in polypeptide synthesis. The primary in vitro adsorption tests showed that the obtained adsorbents provided a good binding capacity for LDL, and had much larger absorbing capacity than

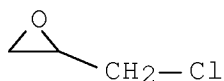
the adsorbent prepd. by direct immobilization of tryptophan on the epoxy-activated PVA beads. This proves that indole groups do play an important part in binding LDL.

IT 106-89-8, Epichlorohydrin, reactions 107-15-3,  
1,2-Ethanediamine, reactions 111-40-0 112-24-3  
112-57-2

RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of adsorbents contg. PVA and amines and indole acetic  
acid for removal of low d. lipoprotein)

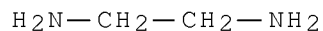
RN 106-89-8 HCA

CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



RN 107-15-3 HCA

CN 1,2-Ethanediamine (CA INDEX NAME)



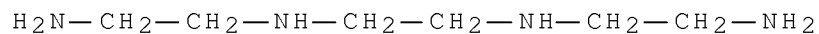
RN 111-40-0 HCA

CN 1,2-Ethanediamine, N1-(2-aminoethyl)- (CA INDEX NAME)



RN 112-24-3 HCA

CN 1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- (CA INDEX NAME)



RN 112-57-2 HCA

CN 1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]- (CA INDEX NAME)

H<sub>2</sub>N—CH<sub>2</sub>—CH<sub>2</sub>—NH—CH<sub>2</sub>—CH<sub>2</sub>—NH—CH<sub>2</sub>—CH<sub>2</sub>—NH—CH<sub>2</sub>—CH<sub>2</sub>—NH<sub>2</sub>

CC 63-8 (Pharmaceuticals)  
Section cross-reference(s): 25, 35  
IT 73-22-3, Tryptophan, reactions 87-51-4, Indole-3-acetic acid,  
reactions 106-89-8, Epichlorohydrin, reactions  
107-15-3, 1,2-Ethanediamine, reactions 111-40-0  
112-24-3 112-57-2 124-09-4, 1,6-Hexanediamine,  
reactions 538-75-0, DCC  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of adsorbents contg. PVA and amines and indole acetic  
acid for removal of low d. lipoprotein)

L276 ANSWER 9 OF 35 HCA COPYRIGHT 2009 ACS on STN  
AN 141:314320 HCA  
TI Preparation of indazoles and related compounds as p38 inhibitors

L276 ANSWER 10 OF 35 HCA COPYRIGHT 2009 ACS on STN  
AN 141:190781 HCA  
TI Preparation of pyrrolopyridinones as mitogen activated protein  
kinase-activated protein kinase-2 inhibiting compounds

L276 ANSWER 11 OF 35 HCA COPYRIGHT 2009 ACS on STN  
AN 141:71568 HCA Full-text  
TI Preparation of supported triazine compounds and their use in forming  
multidimensional libraries for affinity chromatography  
IN Burton, Steven James; Hussain, Abid; Pearson, James Christopher  
PA Prometic Biosciences Ltd., UK  
SO PCT Int. Appl., 40 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

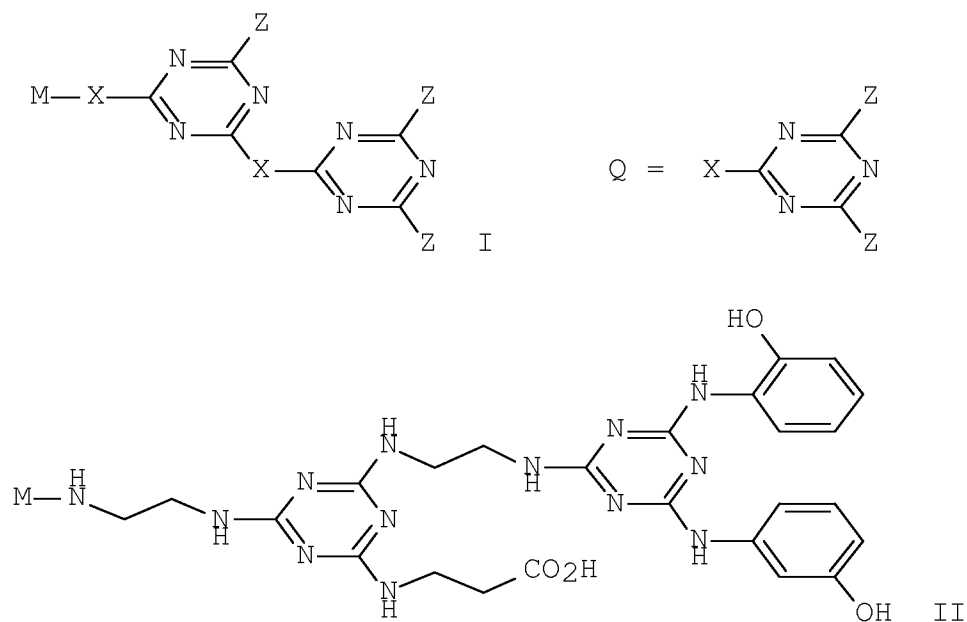
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PI	WO 2004052870	A1	20040624	WO 2003-GB5368	200312 09

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,  
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,  
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,

			MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
	RW:		BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
CA	2508452	A1	20040624	CA	2003-2508452
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IN	2005DN02990	A	20090320	IN	2005-DN2990
					20050705
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US	20060052598	A1	20060309	US	2005-536953
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PRAI	GB 2002-28724	A	20021209	<--	
	US 2003-443092P	P	20030128	<--	
	WO 2003-GB5368	W	20031209	<--	

OS MARPAT 141:71568  
GI



AB Supported triazine multidimensional combinatorial libraries I (each Z = independently Q, Y; each X = independently multivalent aminyl group, diaminy-terminated spacer; each Y = independently aminyl group; M = support matrix) were prep'd. ligands for the purifn. of natural, recombinant, or transgenic proteinaceous materials. Thus, a combinatorial library contg. linked triazines II (M = epichlorohydrin-derivatized agarose resin) was prep'd. in several steps by condensing the appropriate diamines with cyanuric chloride, followed by further derivatization with diamines, amino alcs., or amino acids.

IT 100-46-9, Benzylamine, reactions 106-89-8,  
Epichlorohydrin, reactions 107-15-3, Ethylenediamine,  
reactions

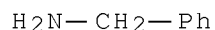
RL: CRT (Combinatorial reactant); RCT (Reactant); CMBI  
(Combinatorial study); RACT (Reactant or reagent)

(prepn. of supported multidimensional triazine combinatorial  
libraries for affinity chromatog. purifn. of proteinaceous  
materials)

RN 100-46-9 HCA

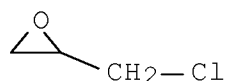


CN Benzenemethanamine (CA INDEX NAME)



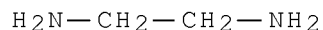
RN 106-89-8 HCA

CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



RN 107-15-3 HCA

CN 1,2-Ethanediamine (CA INDEX NAME)



IC ICM C07D251-54

ICS C07D251-70; C07D403-14; B01D015-08; G01N030-48

CC 28-19 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 9

IT 711012-18-9DP, reaction products with epichlorohydrin-derivatized agarose resin 711012-20-3DP, reaction products with epichlorohydrin-derivatized agarose resin 711012-21-4DP, reaction products with epichlorohydrin-derivatized agarose resin

RL: CPN (Combinatorial preparation); PUR (Purification or recovery);  
CMBI (Combinatorial study); PREP (Preparation)  
(prepn. of supported multidimensional triazine combinatorial libraries for affinity chromatog. purifn. of proteinaceous materials)

IT 51-67-2, Tyramine 56-12-2, 4-Aminobutyric acid, reactions  
56-86-0, L-Glutamic acid, reactions 60-18-4, L-Tyrosine, reactions  
60-32-2, 6-Aminocaproic acid 61-54-1, Tryptamine 62-53-3,  
Aniline, reactions 64-04-0, Phenethylamine 78-81-9,  
Isobutylamine 89-93-0, 2-Methylbenzylamine 95-55-6,  
2-Aminophenol 99-05-8, 3-Aminobenzoic acid 100-46-9,  
Benzylamine, reactions 104-84-7, 4-Methylbenzylamine  
106-89-8, Epichlorohydrin, reactions 107-15-3,

Ethylenediamine, reactions 107-95-9,  $\beta$ -Alanine 108-44-1,  
 m-Toluidine, reactions 108-77-0, Cyanuric chloride 109-73-9,  
 Butylamine, reactions 123-30-8, 4-Aminophenol 150-13-0,  
 4-Aminobenzoic acid 516-06-3, Valine 543-82-8,  
 2-Amino-6-methylheptane 822-98-0, 2-Aminonorbornane 1877-77-6,  
 3-Aminobenzyl alcohol 2038-03-1, 4-(2-Aminoethyl)morpholine  
 2706-56-1, 2-(2-Aminoethyl)pyridine 2834-90-4, 4-Amino-1-naphthol  
 2835-99-6, 4-Amino-m-cresol 2836-04-6,  
 N,N-Dimethyl-1,3-phenylenediamine 2906-12-9,  
 3-Isopropoxypropylamine 3261-62-9, 2-(p-Tolyl)ethylamine  
 4403-70-7, 3-Aminobenzylamine 4747-21-1, N-Methylisopropylamine  
 7144-05-0, 4-(Aminomethyl)piperidine 7154-73-6,  
 1-(2-Aminoethyl)pyrrolidine 7324-05-2, L-Alanineamide  
 10420-89-0, (S)-1-(1-Naphthyl)ethylamine 13952-84-6,  
 ( $\pm$ )-sec-Butylamine 22374-89-6, 3-Amino-1-phenylbutane  
 22526-46-1, (S)-3-Methyl-2-butylamine 23356-96-9, (S)-Prolinol  
 23357-52-0, (S)-1,2,3,4-Tetrahydro-1-naphthylamine 27578-60-5,  
 1-(2-Aminoethyl)piperidine 28292-43-5, 2-Amino-5-methylhexane  
 34698-41-4 36489-03-9, 2-Ethylthio(ethylamine) 50541-93-0,  
 4-Amino-1-benzylpiperidine 51387-90-7,  
 2-(2-Aminoethyl)-1-methylpyrrolidine 627086-11-7, PuraBead 6XL  
 711012-19-0

RL: CRT (Combinatorial reactant); RCT (Reactant); CMBI  
 (Combinatorial study); **RACT (Reactant or reagent)**

(prepn. of supported multidimensional triazine combinatorial  
 libraries for affinity chromatog. purifn. of proteinaceous  
 materials)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L276 ANSWER 12 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 140:147237 HCA Full-text

TI Method for producing selective separation membrane excellent in  
 anti-fouling stability

IN Koo, Ja-yeong; Kim, Sun-sik; Yoon, Seong-ro; Hong, Son-pyo

PA Saehan Industries, Inc., S. Korea

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

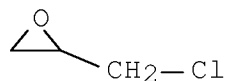
LA Japanese

FAN.CNT 3

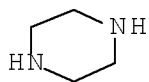
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PI	JP 2004025102	A	20040129	JP 2002-187857	

200206  
 27

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	JP 3860510	B2	20061220		
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	FR 2843045	A1	20040206	FR 2002-9654	
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	FR 2843045	B1	20080725		
PRAI	DE 2002-10228148	A	20020624	<--	
	GB 2002-14603	T	20020625	<--	
	JP 2002-187857	A	20020627	<--	
	NL 2002-1020950	A	20020627	<--	
	FR 2002-9654	A	20020730	<--	
AB	A method is provided for producing selective sepn. membrane (polyamide reverse-osmosis composite membrane) excellent in fouling stability. The method comprises forming a polyamide thin film on a porous support body, and afterwards, performing a hydrophilic coating on the polyamide thin film to produce a hydrophilic polyamide reverse-osmosis composite membrane. The hydrophilic coating is characterized in that an epoxy compd. possessing at least more than two epoxy groups is coated on the polyamide composite membrane, and afterwards, the epoxy compd. is cross-linked to yield a water-insol. polymer.				
IT	106-89-8D, Epichlorohydrin, reaction products with 1,3,5-tris(2-hydroxyethyl)cyanuric acid, tris(hydroxymethyl)aminomethane, polyvinylalc., polyacrylamide, cellulose, hydroxyethylcellulose, hydroxypropylcellulose, cellulose substituent 110-85-0, Piperazine, reactions 111-40-0, Diethylenetriamine 112-24-3, Triethylenetetramine				
	RL: RCT (Reactant); RACT (Reactant or reagent)				
	(method for producing selective sepn. membrane excellent in anti-fouling stability)				
RN	106-89-8 HCA				
CN	Oxirane, 2-(chloromethyl)- (CA INDEX NAME)				



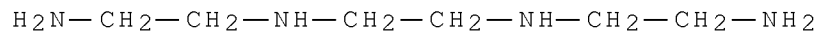
RN 110-85-0 HCA  
CN Piperazine (CA INDEX NAME)



RN 111-40-0 HCA  
CN 1,2-Ethanediamine, N1-(2-aminoethyl)- (CA INDEX NAME)



RN 112-24-3 HCA  
CN 1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- (CA INDEX NAME)



IC ICM B01D069-12  
ICS B01D061-02; B01D061-14; B01D071-26; B01D071-30; B01D071-42;  
B01D071-46; B01D071-56; B01D071-64; B01D071-68; C08J009-36;  
C08L077-00  
CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 48, 61  
IT **Polymers**, uses  
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP  
(Preparation); USES (Uses)  
(halo; method for producing selective sepn. membrane excellent in  
anti-fouling stability)  
IT Phenolic **resins**, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(novolak, epoxycresol; method for producing selective sepn.  
membrane excellent in anti-fouling stability)  
IT Phenolic **resins**, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(novolak; method for producing selective sepn. membrane excellent  
in anti-fouling stability)  
IT **Polymerization**  
(surface; method for producing selective sepn. membrane excellent

in anti-fouling stability)

IT **Polymers, uses**

RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(water-insol.; method for producing selective sepn. membrane excellent in anti-fouling stability)

IT 50-70-4, Sorbitol, reactions 50-99-7, Glucose, reactions  
56-81-5, Glycerol, reactions 57-48-7, Fructose, reactions  
57-55-6, Propyleneglycol, reactions 69-79-4, Maltose 77-85-0,  
1,1,1-Tris(hydroxymethyl)ethane 77-99-6, Trimethylolpropane  
80-05-7, Bisphenol A, reactions 80-05-7D, Bisphenol A,  
hydrogenated deriv. 80-08-0, Bis(4-aminophenyl)sulfone 80-70-6,  
1,1,3,3-Tetramethylguanidine 87-69-4, Tartaric acid, reactions  
88-45-9, 2,5-Diaminobenzenesulfonic acid 94-96-2,  
2-Ethyl-1,3-hexanediol 99-10-5, 3,5-Dihydroxybenzoic acid  
101-77-9, Methylenedianiline 101-90-6, Resorcinoldiglycidylether  
106-58-1, 1,4-Dimethylpiperazine ~~106-89-8D~~,  
Epichlorohydrin, reaction products with  
1,3,5-tris(2-hydroxyethyl)cyanuric acid,  
tris(hydroxymethyl)aminomethane, polyvinylalc., polyacrylamide,  
cellulose, hydroxyethylcellulose, hydroxypropylcellulose, cellulose  
substituent 107-21-1, Ethyleneglycol, reactions 107-35-7,  
2-Aminoethanesulfonic acid 107-88-0, 1,3-Butanediol 108-45-2,  
1,3-Benzenediamine, reactions 108-46-3, Resorcinol, reactions  
108-73-6, Phloroglucinol 108-80-5, Isocyanuric acid  
~~110-85-0~~, Piperazine, reactions 111-29-5, 1,5-Pentanediol  
~~111-40-0~~, Diethylenetriamine ~~112-24-3~~,  
Triethylenetetramine 112-47-0, 1,10-Decanediol 115-77-5,  
Pentaerythritol, reactions 123-31-9, Hydroquinone, reactions  
126-11-4, Tris(hydroxymethyl)nitromethane 126-30-7,  
Neopentylglycol 280-57-9, 1,4-Diazabicyclo(2.2.2)octane  
504-63-2, 1,3-Propanediol 526-95-4, Gluconic acid 535-87-5,  
3,5-Diaminobenzoic acid 625-69-4, 2,4-Pentanediol 629-11-8,  
1,6-Hexanediol 629-30-1, 1,7-Heptanediol 629-41-4,  
1,8-Octanediol 928-40-5, 1,5-Hexanediol 929-59-9,  
2,2'-(Ethylenedioxy)bis(ethylamine) 1117-86-8, 1,2-Octanediol  
1119-86-4, 1,2-Decanediol 1119-87-5, 1,2-Dodecanediol 1477-55-0,  
1,3-Benzenedimethanamine 1675-54-3, Bisphenol A diglycidylether  
1675-54-3D, Bisphenol A diglycidylether, hydrogenated deriv.  
2224-15-9, Ethyleneglycoldiglycidylether 2425-01-6,  
Hydroquinonediglycidylether 2425-79-8,  
1,4-Butanedioldiglycidylether 2451-62-9,  
Tris(2,3-epoxypropyl)isocyanurate 2579-20-6,  
1,3-Cyclohexane-bis(methylamine) 2935-44-6, 2,5-Hexanediol  
3001-72-7, 1,5-Diazabicyclo(4.3.0)non-5-ene 3030-47-5 3126-63-4,  
Pentaerythritoltetraglycidylether 3296-90-0,  
Dibromoneopentylglycol 3332-48-7, 1,3-Butanedioldiglycidylether

3416-24-8, Glucosamine 3454-29-3,  
 Trimethylolpropanetriglycidylether 3458-28-4, Mannose 3568-29-4  
 3937-56-2, 1,9-Nonanediol 4097-89-6, Tris(aminoethyl)amine  
 4223-14-7 4741-99-5, N,N'-Bis(2-aminoethyl)-1,3-propanediamine  
 5026-74-4, N,N-Diglycidyl-4-glycidyloxyaniline 5343-92-0,  
 1,2-Pentanediol 5675-51-4, 1,12-Dodecanediol 6674-22-2,  
 1,8-Diazabicyclo(5.4.0)undec-7-ene 6920-22-5, 1,2-Hexanediol  
 7365-44-8 7517-06-8, 1,5-Pentanedioldiglycidylether 9002-98-6  
 9003-47-8, Polyvinylpyridine 9004-57-3, Ethylcellulose  
 9004-67-5, Methylcellulose 9012-76-4, Chitosan 13236-00-5,  
 Pentaerythritoltriglycidylether 13236-02-7,  
 Glyceroltriglycidylether 14307-02-9, Mannosamine 15763-57-2  
 16096-31-4, 1,6-Hexanedioldiglycidylether 17342-30-2 17557-23-2,  
 Neopentylglycoldiglycidylether 18425-64-4,  
 Trimethylolpropanediglycidylether 21799-87-1 24610-19-3,  
 1,8-Octanedioldiglycidylether 25322-68-3, Polyethyleneglycol  
 25322-69-4, Polypropyleneglycol 26142-30-3,  
 Polypropyleneglycoldiglycidylether 26403-72-5,  
 Polyethyleneglycoldiglycidylether 28768-32-3,  
 4,4'-Methylenebis(N,N-diglycidylaniline) 29256-90-4,  
 Diaminocyclohexane 29915-38-6 29953-15-9,  
 Dibromoneopentylglycoldiglycidylether 30350-48-2, Triaminobenzene  
 30551-89-4, Poly(allylamine) 33908-71-3, Sorbitol diglycidyl ether  
 36366-26-4 37237-76-6 40762-73-0, Pentaerythritoldiglycidylether  
 41678-38-0 60553-09-5, 1,10-Decanedioldiglycidylether  
 64055-71-6, Sorbitoltetraglycidylether 64102-85-8,  
 Diglyceroltriglycidylether 68189-43-5 68399-78-0 68399-81-5  
 72557-93-8 74911-53-8 77738-93-3 80046-01-1 87257-06-5  
 101417-05-4 118549-88-5, Polyglycerolglycidylether 121830-73-7  
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 1,9-Nonanedioldiglycidylether 638128-08-2 638128-11-7  
 638128-12-8 638128-13-9 638128-14-0 639007-14-0 652149-93-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)

(method for producing selective sepn. membrane excellent in  
 anti-fouling stability)

L276 ANSWER 13 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 138:304277 HCA

TI Preparation of 3-phenyl-4,5,6,7-tetrahydropyrazolo[4,3-c]pyridines  
 as cathepsin S inhibitors for treating allergies

L276 ANSWER 14 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 136:247576 HCA

TI Preparation of 3-phenyl-4,5,6,7-tetrahydropyrazolo[4,3-c]pyridines  
 as cathepsin S inhibitors for treating allergies

L276 ANSWER 15 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 136:71178 HCA Full-text

TI Preparation of bactericidal and adsorptive cotton fibers

AU Wang, Ge-Hui; Song, Zhan-Qian

CS Department of Environmental Science and Engineering, State Key Laboratory of Pollution Control and Resources Reuse, Nanjing University, Nanjing, 210093, Peop. Rep. China

SO Yingyong Huaxue (2001), 18(10), 831-833

CODEN: YIHUED; ISSN: 1000-0518

PB Yingyong Huaxue Bianji Weiyuanhui

DT Journal

LA Chinese

AB Two kinds of bactericidal and adsorptive cotton fibers (BACF-1, BACF-2) were made through epoxidn., amination and quaternization. The test of their bactericidal activity and adsorption capacity tests showed that both functionalized cotton fibers have good adsorption capacity to Cu<sup>2+</sup> and antibacterial action to staphylococcus aureus and bacilluscoli. They can be regenerated for repeated use after acidification with dil. hydrochloric acid and washing and sterilization with water and 95% alc. successively.

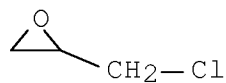
IT 106-89-8, Epichlorohydrin, reactions

RL: RCT (Reactant); RGT (Reagent); RACT (Reactant or reagent)

(cotton fiber treated with; prepn. of bactericidal and adsorptive cotton fibers)

RN 106-89-8 HCA

CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



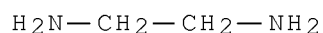
IT 107-15-3, Ethylenediamine, reactions 112-57-2

RL: RGT (Reagent); RACT (Reactant or reagent)

(cotton fiber treated with; prepn. of bactericidal and adsorptive cotton fibers)

RN 107-15-3 HCA

CN 1,2-Ethanediamine (CA INDEX NAME)



RN 112-57-2 HCA  
CN 1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]- (CA INDEX NAME)



CC 40-2 (Textiles and Fibers)  
IT 106-89-8, Epichlorohydrin, reactions  
RL: RCT (Reactant); RGT (Reagent); RACT (Reactant or reagent)  
(cotton fiber treated with; prepn. of bactericidal and adsorptive cotton fibers)  
IT 107-15-3, Ethylenediamine, reactions 112-57-2  
RL: RGT (Reagent); RACT (Reactant or reagent)  
(cotton fiber treated with; prepn. of bactericidal and adsorptive cotton fibers)  
IT 13078-59-6P  
RL: RGT (Reagent); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(cotton fiber treated with; prepn. of epoxy amine for prepn. of bactericidal and adsorptive cotton fibers)

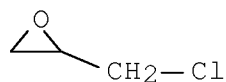
L276 ANSWER 16 OF 35 HCA COPYRIGHT 2009 ACS on STN  
AN 135:226873 HCA  
TI Preparation and formulation of azetidines for pharmaceutical use

L276 ANSWER 17 OF 35 HCA COPYRIGHT 2009 ACS on STN  
AN 135:34449 HCA Full-text  
TI Polyamine-based resin and paper coating composition from the resin  
IN Yamamoto, Satoshi; Kawamura, Akira; Tanikawa, Akira  
PA Sumitomo Chemical Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

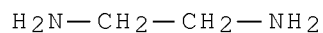
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
	-----				
PI	JP 2001164495	A	20010619	JP 1999-348886	19991208



JP 4129853 B2 20080806  
 PRAI JP 1999-348886 19991208 <--  
 AB The resin is prepd. by the reaction of a polyamine of  
 alkylenediamine, polyalkylene polyamine, and/or a heterocyclic  
 polyamine contg.  $\geq 2$  primary or sec. amine group; urea; a nonarom. sec.  
 monoamine; and a crosslinkable compd. of aldehyde, epichlorohydrin,  
 $\alpha, \omega$ -dihalo- $\beta$ -hydrin, polyepoxy, and/or polyisocyanate. Thus, a resin  
 was prepd. by the reaction of diethylenetriamine 0.8, urea 2.4,  
 dibutylamine 0.08, HCHO 0.8 mol in H<sub>2</sub>O.  
 IT 106-89-8, Epichlorohydrin, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (crosslinking agents; polyamine-based resin and paper  
 coating compn. from the resin)  
 RN 106-89-8 HCA  
 CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



IT 107-15-3, Ethylenediamine, reactions 111-40-0,  
 Diethylenetriamine  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (polyamine-based resin and paper coating compn. from  
 the resin)  
 RN 107-15-3 HCA  
 CN 1,2-Ethanediamine (CA INDEX NAME)



RN 111-40-0 HCA  
 CN 1,2-Ethanediamine, N1-(2-aminoethyl)- (CA INDEX NAME)



IC ICM D21H019-44  
 ICS C08G073-00; C09D179-04  
 CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 43

ST polyamide ~~resin~~ binder paper coating; urea formaldehyde  
amine ~~copolymer~~ coating

IT Aldehydes, reactions  
Epoxy ~~resins~~, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(crosslinking agents; polyamine-based ~~resin~~ and paper  
coating compn. from the ~~resin~~)

IT Crosslinking agents  
Paper  
(polyamine-based ~~resin~~ and paper coating compn. from  
the ~~resin~~)

IT Polyamines  
RL: SPN (Synthetic preparation); TEM (Technical or engineered  
material use); PREP (Preparation); USES (Uses)  
(polyamine-based ~~resin~~ and paper coating compn. from  
the ~~resin~~)

IT Coating materials  
(water-thinned; polyamine-based ~~resin~~ and paper coating  
compn. from the ~~resin~~)

IT 75-13-8D, Isocyanic acid, deriv. 106-89-8,  
Epichlorohydrin, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(crosslinking agents; polyamine-based ~~resin~~ and paper  
coating compn. from the ~~resin~~)

IT 50-00-0, Formaldehyde, reactions 57-13-6, Urea, reactions  
107-15-3, Ethylenediamine, reactions 111-40-0,  
Diethylenetriamine 111-92-2, Dibutylamine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(polyamine-based ~~resin~~ and paper coating compn. from  
the ~~resin~~)

L276 ANSWER 18 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 131:290715 HCA Full-text

TI Process for synthesis of lignin quaternary ammonium salt cation  
flocculant for water treatment

IN Zhu, Wanpeng; Wu, Zhaohong; Yu, Gang

PA Qinghua University, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.  
CODEN: CNXXEV

DT Patent

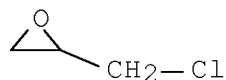
LA Chinese

FAN.CNT 1

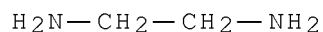
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
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PI	CN 1146999	A	19970409	CN 1996-106784	

&lt;--

CN 1045450 C 19991006  
 PRAI CN 1996-106784 19960712 <--  
 AB The process comprises dissolving 1 part lignin into 10-30 parts solvent to obtain soln. A; adding aldehyde and amine to A under stirring at the ratio of lignin to aldehyde being 1:(1.4-5.6) and the ratio of aldehyde to amine being 1:(0.5-1); adding strong acid catalyst (0-0.02 mol/g lignin) and reacting at 80-120° for 1-10 h; adding **alkylate** and reacting at 40-100° for 0.5-6 h at the ratio of amine to **alkylate** being 1:(1-3); and sepg. under reduced-pressure distn. to obtain the product. The 2nd step can be taken place by reacting aldehyde and amine to obtain methylene diamine first, then reacting methylene diamine with lignin. The solvent is selected from EtOH, DMSO, DMF, pyridine, and/or 1,4-dioxane. The amine is selected from ethylene diamine, diethylamine, dimethylamine, divinyl triamine, trivinyl tetramine, N-ethylamine piperazine, and/or piperazine. The **alkylate** is selected from iodomethane, di-Me sulfate, 1,2-dichloroethane, and/or epichlorohydrin.  
 IT 106-89-8, reactions 107-15-3, 1,2-Ethanediamine, reactions 110-85-0, Piperazine, reactions 111-40-0 112-24-3 140-31-8, 1-Piperazineethanamine  
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); **RACT** (Reactant or reagent); USES (Uses)  
 (process for synthesis of lignin quaternary ammonium salt cation flocculant for water treatment)  
 RN 106-89-8 HCA  
 CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)

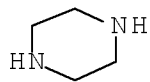


RN 107-15-3 HCA  
 CN 1,2-Ethanediamine (CA INDEX NAME)



RN 110-85-0 HCA

CN Piperazine (CA INDEX NAME)



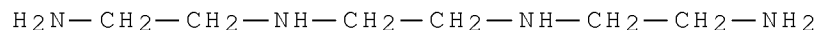
RN 111-40-0 HCA

CN 1,2-Ethanediamine, N1-(2-aminoethyl)- (CA INDEX NAME)



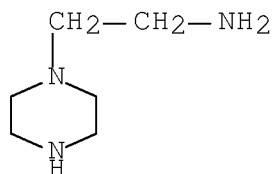
RN 112-24-3 HCA

CN 1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- (CA INDEX NAME)



RN 140-31-8 HCA

CN 1-Piperazineethanamine (CA INDEX NAME)



IC ICM C08H005-02

CC 60-3 (Waste Treatment and Disposal)

Section cross-reference(s): 25, 61

IT 50-00-0, Formaldehyde, reactions 64-17-5, Ethanol, reactions  
67-68-5, Dimethyl sulfoxide, reactions 68-12-2, Dimethylformamide,  
reactions 74-88-4, reactions 77-78-1, Dimethyl sulfate  
106-89-8, reactions 107-06-2, reactions 107-15-3  
, 1,2-Ethanediamine, reactions 109-89-7, Diethylamine, reactions  
110-85-0, Piperazine, reactions 110-86-1, Pyridine,  
reactions 111-40-0 112-24-3 123-91-1,  
1,4-Dioxane, reactions 124-40-3, reactions 140-31-8,

1-Piperazineethanamine 9005-53-2, Lignin, reactions  
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or  
 chemical process); RCT (Reactant); PROC (Process); ~~RACT~~  
 (Reactant or reagent); USES (Uses)  
 (process for synthesis of lignin quaternary ammonium salt cation  
 flocculant for water treatment)

L276 ANSWER 19 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 130:332899 HCA Full-text

TI Use of aliphatic polyamines for reducing oxalate

IN Holmes-Farley, Stephen Randall; Mandeville, W. Harry, III

PA Geltex Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9922744	A1	19990514	WO 1998-US22606	199810 26
				<--	
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 5985938	A	19991116	US 1997-964956	199711 05
				<--	
	ZA 9809671	A	19990428	ZA 1998-9671	199810 23
				<--	
	CA 2349620	A1	19990514	CA 1998-2349620	199810 26
				<--	
	CA 2349620	C	20080408		
	AU 9913647	A	19990524	AU 1999-13647	199810

					26
				<--	
EP 1044008	A1	20001018	EP 1998-957371		
					199810
					26
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EP 1044008	B1	20060104			
R: BE, DE, FR, GB, LU, NL					
JP 2001521902	T	20011113	JP 2000-518676		
					199810
					26
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EP 1645278	A2	20060412	EP 2005-76677		
					199810
					26
				<--	
EP 1645278	A3	20071114			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,					
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL					
TW 585772	B	20040501	TW 1998-87118238		
					199811
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				<--	
US 6177478	B1	20010123	US 1999-359226		
					199907
					22
				<--	
US 6281252	B1	20010828	US 2000-668874		
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US 20010051660	A1	20011213	US 2001-891720		
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US 6566407	B2	20030520			
US 20040018169	A1	20040129	US 2003-441157		
					200305
					19
				<--	
PRAI US 1997-964956	A	19971105	<--		
EP 1998-957371	A3	19981026	<--		
WO 1998-US22606	W	19981026	<--		
US 1999-359226	A1	19990722	<--		
US 2000-668874	A1	20000925	<--		
US 2001-891720	A1	20010626	<--		

AB A method is provided for reducing oxalate levels in a patient that includes administering to the patient a therapeutically effective amt. of non-absorbable amine polymers, e.g. a polymer characterized by a repeat unit  $[\text{CH}_2\text{CH}((\text{CH}_2)_x\text{NH}_2)]_n$ , ( $n = \text{pos. integer}$ ;  $x = 0-4$ ) and salts and copolymers thereof. The invention is useful for reducing a patient's urinary output of oxalate and urinary calculi. Polymer prepn. is also described.

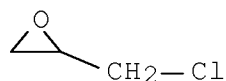
IT 106-89-8, Epichlorohydrin, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(crosslinking agent; polyamines, and prepn. thereof, for reducing oxalate)

RN 106-89-8 HCA

CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



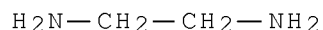
IT 107-15-3, Ethylenediamine, reactions 111-40-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction; polyamines, and prepn. thereof, for reducing oxalate)

RN 107-15-3 HCA

CN 1,2-Ethanediamine (CA INDEX NAME)



RN 111-40-0 HCA

CN 1,2-Ethanediamine, N1-(2-aminoethyl)- (CA INDEX NAME)



IC ICM A61K031-785

CC 1-10 (Pharmacology)

Section cross-reference(s): 35

IT 9024-97-9, Oxalate decarboxylase

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(copolymers contg.; polyamines, and prepn. thereof, for reducing oxalate)

IT 106-89-8, Epichlorohydrin, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (crosslinking agent; polyamines, and prepn. thereof, for reducing oxalate)

IT 25034-58-6P, Acrylamide-methylenebisacrylamide copolymer  
 69824-22-2P, 2-Acrylamido-2-methylpropanesulfonic acid-methylenebisacrylamide copolymer 70144-13-7P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (including oxalate decarboxylase; polyamines, and prepn. thereof, for reducing oxalate)

IT 104-78-9DP, reaction products with Me methacrylate-divinylbenzene copolymer 107-15-3DP, Ethylenediamine, reaction products with Me methacrylate-divinylbenzene copolymer  
 111-40-0DP, Diethylenetriamine, reaction products with Me methacrylate-divinylbenzene copolymer 306-60-5DP, Agmatine, copolymer reaction products 814-68-6DP, Acryloyl chloride, reaction products with polyethyleneimine 2482-00-0DP, Agmatine sulfate, copolymer reaction products 2582-30-1DP, Aminoguanidine bicarbonate, copolymer reaction products 4097-89-6DP, Tris(2-aminoethyl)amine, copolymer reaction products 9002-98-6DP, reaction products with acryloyl chloride or epichlorohydrin 9017-37-2DP, Methyl methacrylate-divinylbenzene copolymer, reaction products with amines 25610-84-8P, Aziridine-epichlorohydrin copolymer 34369-44-3P, Epichlorohydrin-pentaethylenehexamine copolymer 66410-17-1P, Divinylbenzene-Vinylamine copolymer 71550-12-4P, Poly(allylamine) hydrochloride 95522-45-5P 132460-82-3P, Dimethylaminopropylacrylamide-methylene-bisacrylamide copolymer 152751-57-0P 154245-11-1P 162786-36-9DP, Divinylbenzene-methacryloyl chloride copolymer, agmatine sulfate reaction products 162786-36-9DP, Divinylbenzene-methacryloyl chloride copolymer, amine reaction products 198343-02-1P 198343-03-2P 198343-04-3P 224313-15-9P 224313-20-6DP, reaction products with agmatine 224313-23-9P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (polyamines, and prepn. thereof, for reducing oxalate)

IT 107-11-9D, Allylamine, derivs., polymers 124-02-7D,



Diallylamine, derivs., polymers 593-67-9D, Vinylamine, derivs., polymers 9003-01-4 9003-01-4D, derivs. 9003-05-8 9003-05-8D, derivs. 26336-38-9 26336-38-9D, derivs. 30551-89-4 30551-89-4D, derivs. 31245-56-4 31245-56-4D, derivs. 51382-06-0 51382-06-0D, crosslinked 52757-95-6 138807-57-5 138807-57-5D, derivs. 157475-96-2 157475-96-2D, crosslinked 198342-67-5 224313-04-6 224313-04-6D, crosslinked  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(polyamines, and prepn. thereof, for reducing oxalate)

IT 5202-78-8P, Vinylacetamide 5335-91-1P, Ethylidenebisacetamide 9017-37-2P, Methyl methacrylate-divinylbenzene copolymer 147898-29-1P 162786-36-9P, Divinylbenzene-methacryloyl chloride copolymer 224313-18-2P 224313-20-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction; polyamines, and prepn. thereof, for reducing oxalate)

IT 60-35-5, Acetamide, reactions 75-07-0, Acetaldehyde, reactions 104-78-9 ~~107-15-3~~, Ethylenediamine, reactions ~~111-40-0~~ 306-60-5, Agmatine 814-68-6, Acryloyl chloride 2482-00-0, Agmatine sulfate 2582-30-1, Aminoguanidine bicarbonate 4097-89-6, Tris(2-aminoethyl)amine 6066-82-6, N-Hydroxysuccinimide  
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction; polyamines, and prepn. thereof, for reducing oxalate)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L276 ANSWER 20 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 130:67424 HCA

TI Development of migration study methods in compliance with directives of the European Union for studies of migration (and/or content) of low-molecular-weight substances from Polish plastics intended for contact with foods

L276 ANSWER 21 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 128:244737 HCA Full-text

OREF 128:48459a,48462a

TI Cure kinetics of novel tetrafunctional N-glycidyl epoxy resin and their glass fiber-reinforced composite

AU Amin, Kamlesh G.; Patel, Kalpesh J.; Patel, Ranjan G.

CS Department of Chemistry, Sardar Patel University, Vallabh Vidyanagar, 388 120, India

SO Iranian Polymer Journal (1997), 6(4), 227-233

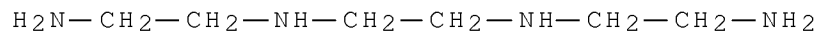
CODEN: IPJOFF; ISSN: 1026-1265

PB Polymer Research Center of Iran

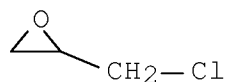
DT Journal  
 LA English  
 AB The curing reactions of tetrafunctional epoxy resin N,N,N',N'-tetraglycidyl-1,1'-bis[4-(p-aminophenoxy)phenyl]phenylmethane using different amine curing agents are studied by differential scanning calorimetry. The kinetics of the thermal degrdn. of cured epoxy resins are studied by thermogravimetry at a heating rate of 10 °C min-1. The overall activation energy for the curing reactions are obsd. to be in the range 76.0-386.1 kJ.mol-1. The glass fiber-epoxy resin composites are fabricated using the tetrafunctional N-glycidyl epoxy resin with the conventional epoxy resin DGEBA in the ratio 20:80 using different amine curing agents and evaluating for their phys., mech., chem. and elec. properties.  
 IT 111-40-0, Diethylenetriamine 112-24-3  
 RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
 (cure kinetics of tetrafunctional glycidyl epoxy resin and their glass fiber-reinforced composite)  
 RN 111-40-0 HCA  
 CN 1,2-Ethanediamine, N1-(2-aminoethyl)- (CA INDEX NAME)



RN 112-24-3 HCA  
 CN 1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- (CA INDEX NAME)



IT 106-89-8, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (in prepn. of tetraglycidylbis[(aminophenoxy)phenyl]phenylmethane)  
 RN 106-89-8 HCA  
 CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



CC 37-6 (Plastics Manufacture and Processing)

ST crosslinking kinetics epoxy resin; glass fiber epoxy resin composite

IT Crosslinking kinetics  
     (cure kinetics of tetrafunctional glycidyl epoxy resin and their glass fiber-reinforced composite)

IT Glass fibers, uses  
     RL: MOA (Modifier or additive use); USES (Uses)  
     (cure kinetics of tetrafunctional glycidyl epoxy resin and their glass fiber-reinforced composite)

IT Epoxy resins, preparation  
     RL: POF (Polymer in formulation); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
     (cure kinetics of tetrafunctional glycidyl epoxy resin and their glass fiber-reinforced composite)

IT Bending strength  
     Dielectric constant  
     Dielectric loss  
     Electric resistance  
     Hardness (mechanical)  
     Shear strength  
     (of glass fiber-reinforced tetrafunctional glycidyl epoxy resin composite)

IT 80-08-0 101-77-9 111-40-0, Diethylenetriamine  
     112-24-3 1675-54-3  
     RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
     (cure kinetics of tetrafunctional glycidyl epoxy resin and their glass fiber-reinforced composite)

IT 204994-41-2P, N,N,N',N'-Tetraglycidyl-1,1'-bis[4-(p-aminophenoxy)phenyl]phenylmethane homopolymer 204994-42-3P, Bisphenol A diglycidyl ether-4,4'-diaminodiphenyl sulfone-N,N,N',N'-tetraglycidyl-1,1'-bis[4-(p-aminophenoxy)phenyl]phenylmethane copolymer  
     204994-43-4P, Bisphenol A diglycidyl ether-4,4'-diaminodiphenylmethane-N,N,N',N'-tetraglycidyl-1,1'-bis[4-(p-aminophenoxy)phenyl]phenylmethane copolymer  
     204994-44-5P, Bisphenol A diglycidyl ether-N,N,N',N'-tetraglycidyl-1,1'-bis[4-(p-aminophenoxy)phenyl]phenylmethane-triethylenetetramine copolymer 204994-45-6P, Bisphenol A diglycidyl ether-diethylenetriamine-N,N,N',N'-tetraglycidyl-1,1'-bis[4-(p-aminophenoxy)phenyl]phenylmethane copolymer  
     RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(cure kinetics of tetrafunctional glycidyl epoxy resin  
and their glass fiber-reinforced composite)

IT 100-52-7, Benzaldehyde, reactions ~~106-89-8~~, reactions  
108-95-2, Phenol, reactions

RL: RCT (Reactant); ~~RACT~~ (Reactant or reagent)  
(in prepn. of tetraglycidylbis[(aminophenoxy)phenyl]phenylmethane  
)

IT 204994-40-1P, N,N,N',N'-Tetraglycidyl-1,1'-bis[4-(p-  
aminophenoxy)phenyl]phenylmethane

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);  
RACT (Reactant or reagent)  
(prepn. and ~~polymn.~~ of)

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L276 ANSWER 22 OF 35 HCA COPYRIGHT 2009 ACS on STN  
AN 127:228839 HCA  
TI Pharmaceutical agents containing perfluoroalkyl-containing metal  
complexes and the use thereof in tumor therapy and intervention al  
radiology

L276 ANSWER 23 OF 35 HCA COPYRIGHT 2009 ACS on STN  
AN 126:314517 HCA  
TI Novel affinity ligands and their use

L276 ANSWER 24 OF 35 HCA COPYRIGHT 2009 ACS on STN  
AN 125:34037 HCA Full-text  
OREF 125:6668h,6669a  
TI Preparation of soluble combinatorial libraries using soluble  
macromolecular supports  
IN Janda, Kim; Han, Hyunsoo  
PA Scripps Research Institute, USA  
SO PCT Int. Appl., 154 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
	-----				
PI	WO 9603418	A1	19960208	WO 1995-US9614	199507 26

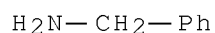
<--

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES,  
FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU,  
LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,

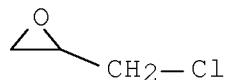


selected from polyethylene glycol, polyvinyl alc., polyvinylamine copolymd. with polyvinylpyrrolidine, and derivs. thereof. Further, a split synthesis technique for generating libraries of combinatorial mols. employs a biphasic macromol. support which is sol. during the pooling, splitting, and coupling steps but which is insol. during the washing step. The use of a biphasic macromol. support in its insol. phase significantly enhances the efficiency and performance of the washing step. Thus, a library of 8 tetrasaccharides (e.g. I, II, and III), useful as antigenic markers which distinguishes fetal erythrocytes from adult cells (no data), were prepd. by the split synthesis technique involving sequential coupling of a library of polyethylene glycol monomethyl ether-bound glucose and galactose derivs. (IV and V; R = MeO-PEG-O2CCH2CH2CO, wherein PEG = polyethylene glycol) (prepn. given) with (A) galactosamine and glucosamine derivs. (VI and VII) (prepn. given), (B) glucose and galactose derivs. IV and V (R = H) (prepn. given), and (C) galactosamine deriv. VI.

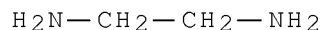
IT 100-46-9, Benzylamine, reactions 106-89-8,  
 reactions 107-15-3, 1,2-Ethanediamine, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of sol. combinatorial libraries using sol. macromol.  
 supports)  
 RN 100-46-9 HCA  
 CN Benzenemethanamine (CA INDEX NAME)



RN 106-89-8 HCA  
 CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



RN 107-15-3 HCA  
 CN 1,2-Ethanediamine (CA INDEX NAME)



IC ICM C07H021-00  
ICS C07K001-04  
CC 33-4 (Carbohydrates)  
Section cross-reference(s): 1, 26, 34  
IT 50-99-7, D-Glucose, reactions 56-40-6, Glycine, reactions  
59-23-4, D-Galactose, reactions 60-18-4, Tyrosine, reactions  
61-90-5, Leucine, reactions 62-53-3, Aniline, reactions 63-91-2,  
Phenylalanine, reactions 66-84-2, D-Glucosamine hydrochloride  
67-64-1, 2-Propanone, reactions 67-66-3, Chloroform, reactions  
69-65-8, D-Mannitol 74-88-4, Methyl iodide, reactions 75-29-6,  
2-Chloropropane 75-44-5, Phosgene 78-77-3,  
1-Bromo-2-methylpropane 78-81-9, Isobutylamine 100-39-0, Benzyl  
bromide 100-44-7, Benzyl chloride, reactions ~~100-46-9~~,  
Benzylamine, reactions ~~106-89-8~~, reactions  
~~107-15-3~~, 1,2-Ethanediamine, reactions 108-24-7, Acetic  
anhydride 108-30-5, Succinic anhydride, reactions 108-95-2,  
Phenol, reactions 115-11-7, Isobutylene, reactions 298-12-4,  
Glyoxalic acid 302-01-2, Hydrazine, reactions 504-29-0,  
2-Pyridylamine 621-84-1, Benzyl carbamate 767-15-7,  
2-Amino-4,6-dimethylpyrimidine 771-61-9, Pentafluorophenol  
943-45-3, 2-Phenoxyisobutyric acid 1125-88-8, Benzaldehyde  
dimethyl acetal 1772-03-8, D-Galactosamine hydrochloride  
2488-15-5 4530-20-5 6752-38-1, 4-(Chlorosulfonyl)phenyl  
isocyanate 6908-41-4, Methyl 4-(hydroxymethyl)benzoate  
7664-41-7, Ammonia, reactions 13139-15-6 13734-34-4  
24424-99-5, Di-tert-butyl dicarbonate 27079-92-1, 4-Hydroxybenzyl  
bromide 47689-67-8 86060-81-3 90719-32-7 177797-26-1  
177797-65-8 177797-66-9 177797-67-0 177797-68-1 177797-91-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of sol. combinatorial libraries using sol. macromol.  
supports)  
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L276 ANSWER 25 OF 35 HCA COPYRIGHT 2009 ACS on STN  
AN 124:194327 HCA Full-text  
OREF 124:35679a,35682a  
TI Crosslinked **polymers** for removing bile salts from a  
patient  
IN Mandeville, W. Harry, III; Holmes-Farley, Stephen Randall  
PA Geltex Pharmaceuticals, Inc., USA  
SO PCT Int. Appl., 73 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 14

	PATENT NO. ----- -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
PI	WO 9534588	A1	19951221	WO 1995-US6542	199505 24
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT			<--	
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5624963	A	19970429	US 1994-258477	199406 10
	AU 9525560	A	19960105	AU 1995-25560	199505 24
	AU 694777	B2	19980730		
	EP 764177	A1	19970326	EP 1995-919914	199505 24
	EP 764177	B1	20010912		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE			<--	
	JP 10501264	T	19980203	JP 1995-502188	199505 24
	RU 2146266	C1	20000310	RU 1996-124822	199505 24
	AT 205508	T	20010915	AT 1995-919914	199505 24
	HK 1001611	A1	20041210	HK 1998-100531	199801 21
PRAI	US 1994-258477	A	19940610	<--	



US 1993-71564 B2 19930602 <--

WO 1995-US6542 W 19950524 <--

AB A method for removing bile salts from a patient by ion exchange involves administering to the patient a therapeutically effective amt. of  $\geq 1$  highly crosslinked polymers characterized by a repeat unit  $[\text{CH}_2\text{C}(\text{R}_1)(\text{M})]_n$  [ $n = \text{integer}$ ;  $\text{R}_1 = \text{H}$ , C1-C8 alkyl;  $\text{M} = \text{C}(\text{O})\text{ZR}_2$ ,  $\text{ZR}_2$ ;  $\text{Z} = \text{O}$ ,  $\text{NR}_3$ ,  $\text{S}$ ,  $(\text{CH}_2)_m$ ;  $m = 0-10$ ;  $\text{R}_3 = \text{H}$ , C1-C8 alkyl;  $\text{R}_2 = (\text{CH}_2)_p\text{N}(\text{R}_4)(\text{R}_5)$ ,  $(\text{CH}_2)_p\text{N}^+(\text{R}_4)(\text{R}_5)(\text{R}_6)$ ;  $p = 0-10$ ;  $\text{R}_4$ ,  $\text{R}_5$ ,  $\text{R}_6 = \text{H}$ , C1-C8 alkyl, aryl] or copolymer thereof, the polymers being non-toxic and stable once ingested. Polymer prepn. is described. Polymers of the invention were efficacious in removing bile salts from artificial intestinal fluid.

IT 106-89-8, reactions 108-00-9 110-85-0,

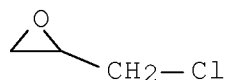
Piperazine, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(crosslinked polymer prepn. for removing bile salts from a patient)

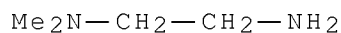
RN 106-89-8 HCA

CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



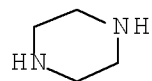
RN 108-00-9 HCA

CN 1,2-Ethanediamine, N1,N1-dimethyl- (CA INDEX NAME)



RN 110-85-0 HCA

CN Piperazine (CA INDEX NAME)



IC ICM C08F220-34

ICS C08F220-60; A61K031-785; A61K031-795

CC 1-10 (Pharmacology)  
Section cross-reference(s): 35

ST bile salt removal crosslinked **polymer** prepn

IT Intestine  
Ion exchangers  
(crosslinked **polymer** prepn. for removing bile salts  
from a patient)

IT Bile salts  
RL: REM (Removal or disposal); PROC (Process)  
(crosslinked **polymer** prepn. for removing bile salts  
from a patient)

IT **Polymers**, biological studies  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(crosslinked; crosslinked **polymer** prepn. for removing  
bile salts from a patient)

IT **Alkylation**  
(agents, crosslinked **polymer** prepn. for removing bile  
salts from a patient)

IT 60-35-5, Acetamide, reactions 75-31-0, Isopropylamine, reactions  
106-89-8, reactions 108-00-9 110-85-0,  
Piperazine, reactions 629-27-6, 1-Iodooctane 814-68-6, Acryloyl  
chloride 920-46-7 3033-77-0, Glycidyltrimethylammonium chloride  
9002-98-6 30030-25-2  
RL: RCT (Reactant); **R**ACT (Reactant or reagent)  
(crosslinked **polymer** prepn. for removing bile salts  
from a patient)

IT 2210-25-5P 5202-78-8P 5335-91-1P, Ethylidenebisacetamide  
26204-99-9P 28384-61-4P, n-Butylmethacrylamide 28408-65-3P,  
Poly(vinylacetamide) 44986-83-6P 50325-49-0P 168270-38-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);  
**R**ACT (Reactant or reagent)  
(crosslinked **polymer** prepn. for removing bile salts  
from a patient)

IT 106-89-8DP, reaction products with poly(ethyleneimine) 629-27-6DP,  
1-Iodooctane, reaction products with crosslinked **polymers**  
9002-98-6DP, reaction products with epichlorohydrin 26336-38-9P,  
Poly(vinylamine) 100236-64-4DP, reaction products with  
1-iodo-octane 100236-64-4P 127339-84-8DP, reaction products with  
1-iodo-octane 127339-84-8P 132460-82-3P 146894-57-7P  
160949-80-4P 160949-85-9P 174490-56-3P 174490-57-4P  
174490-58-5P 174490-59-6P 174490-60-9P 174490-61-0P  
174490-62-1P 174490-63-2P 174490-64-3P 174490-65-4P  
174490-66-5P 174490-67-6P 174490-68-7P 174490-69-8P  
174490-70-1P 174490-71-2P 174490-72-3P 174490-73-4P  
174490-74-5P 174490-75-6P 174490-76-7P 174490-78-9P  
174490-79-0P 174490-81-4P 174490-82-5P  
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL

(Biological study); PREP (Preparation); USES (Uses)  
(crosslinked ~~polymer~~ prepn. for removing bile salts  
from a patient)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L276 ANSWER 26 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 117:191427 HCA

TI Functionalization of silica and its use as a catalyst: application  
of the modified silica for several nucleophilic reactions

L276 ANSWER 27 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 107:133910 HCA Full-text

OREF 107:21621a,21624a

TI Diquaternary ammonium salts, their preparation and their use as  
**textile finishing** agents

IN Topfl, Rosemarie; Abel, Heinz; Binz, Jorg

PA Ciba-Geigy A.-G., Switz.

SO Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	EP 221855	A2	19870513	EP 1986-810499	198611 03
				<--	
	EP 221855	A3	19880511		
	EP 221855	B1	19900711		
	R: CH, DE, ES, FR, GB, IT, LI				
	ZA 8608483	A	19870624	ZA 1986-8483	198611 07
				<--	
	JP 62174042	A	19870730	JP 1986-264917	198611 08
				<--	
	JP 63028417	B	19880608		
	US 4906413	A	19900306	US 1988-270378	198811 10
				<--	
PRAI	CH 1985-4801	A	19851108	<--	

US 1986-925059 B1 19861030 <--

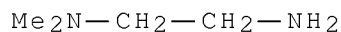
AB H43C21COQ1A1N+R1R2Z1N+R3R4A2Q2COC21H43 3-n(Y1)n- [I; A1, A2 = C2-5 alkylene; Q1, Q2 = NH, O; R1, R2, R3, R4 = alkyl, hydroxy-, alkoxyalkyl with C1-4 in each alkyl; (Y1)n- = anion of a strong acid; Z1 = OH-substituted C3-24 alkylene with optional O interruption; n = 1, 2], useful as textile auxiliaries, were prepd. by reaction of 1 mol H43C21COQ1A1NR1R2 and 1 mol H43C21COQ2A2NR3R4 with 1 mol X1Z'X2 [X1 = epoxy group, X2 = epoxy group or movable halo; Z' = C1-20 alkylene (un)substituted with OH and optionally with O interrupter; when X2 = epoxy, Z' = bond] in the presence of a strong acid H+n(Y1)n-. Behenic acid and Me2NCH2CH2NH2 reacted to give C21H43CONH(CH2)2NMe2 which was treated with concd. HCl in H2O and Me2CHOH, then with epichlorohydrin to give [C21H43CONH(CH2)2N+Me2CH2]2CHOH 2Cl-. Several examples involving treatment of textiles with I were given.

IT 108-00-9 109-55-7

RL: RCT (Reactant); RACT (Reactant or reagent)  
(amidation by, of behenic acid)

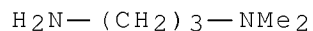
RN 108-00-9 HCA

CN 1,2-Ethanediamine, N1,N1-dimethyl- (CA INDEX NAME)



RN 109-55-7 HCA

CN 1,3-Propanediamine, N1,N1-dimethyl- (CA INDEX NAME)

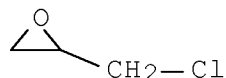


IT 106-89-8, Epichlorohydrin, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with substituted behenamides)

RN 106-89-8 HCA

CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



IC ICM C07C103-54  
 ICS C07C093-187; D06M013-46  
 CC 23-18 (Aliphatic Compounds)  
 Section cross-reference(s): 40  
 IT **Textiles**  
 (finishing agents for, behenoyl diquaternary ammonium  
 compds.)  
 IT Quaternary ammonium compounds, preparation  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (di-, behenoyl, prepn. of, as textile finishing  
 agents)  
 IT 100-36-7 108-00-9 109-55-7 121-05-1  
 53369-71-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (amidation by, of behenic acid)  
 IT 106-89-8, Epichlorohydrin, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with substituted behenamides)

L276 ANSWER 28 OF 35 HCA COPYRIGHT 2009 ACS on STN  
 AN 105:78646 HCA  
 TI 1-Aryloxy-3-(substituted alkylamino)-2-propanols

L276 ANSWER 29 OF 35 HCA COPYRIGHT 2009 ACS on STN  
 AN 98:215838 HCA  
 TI Isoprenyl amine derivatives and their pharmaceutical compositions

L276 ANSWER 30 OF 35 HCA COPYRIGHT 2009 ACS on STN  
 AN 97:39448 HCA  
 TI Determination of the polycondensation reaction heat in dynamic  
 conditions

L276 ANSWER 31 OF 35 HCA COPYRIGHT 2009 ACS on STN  
 AN 93:186265 HCA  
 TI Antidepressant activity of cyclohexylphenoxymorpholines

L276 ANSWER 32 OF 35 HCA COPYRIGHT 2009 ACS on STN  
 AN 87:70829 HCA  
 TI Substituted phenoxy propanol diamines and amino alcohol detergent  
 additives for fuels and mineral oils

L276 ANSWER 33 OF 35 HCA COPYRIGHT 2009 ACS on STN  
 AN 86:120879 HCA Full-text  
 OREF 86:19083a,19086a  
 TI Polyamines  
 IN Witzel, Bruce E.; Grier, Nathaniel; Dybas, Richard A.; Strelitz,  
 Robert A.

PA Merck and Co., Inc., USA  
 SO Ger. Offen., 57 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO. ----- -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
PI	DE 2617672	A1	19761111	DE 1976-2617672	197604 23
	US 4049417	A	19770920	<-- US 1976-664612	197603 08
	NO 7601279	A	19761029	<-- NO 1976-1279	197604 13
	NO 142259	B	19800414	<--	
	NO 142259	C	19800723		
	SE 7604330	A	19761029	SE 1976-4330	197604 13
	SE 434635	B	19840806	<--	
	SE 434635	C	19841115		
	DK 7601725	A	19761029	DK 1976-1725	197604 14
	NL 7603981	A	19761101	<-- NL 1976-3981	197604 14
	IL 49437	A	19801026	<-- IL 1976-49437	197604 19
	GB 1499056	A	19780125	<-- GB 1976-16374	197604 22
	CA 1083607	A1	19800812	<-- CA 1976-251250	197604

22

FR 2309511                      A1            19761126            <--  
FR 1976-12294

197604  
26

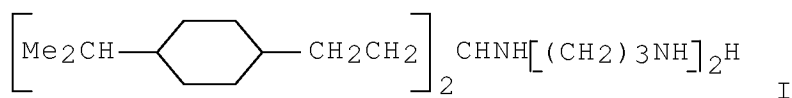
CH 618957                      A5            19800829            <--  
CH 1976-5293

197604  
27

JP 51128951                      A            19761110            <--  
JP 1976-47908

197604  
28

JP 61010458                      B            19860329            <--  
PRAI US 1975-572592            A            19750428            <--  
GI



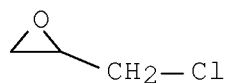
AB      Algicidal, bactericidal, and fungicidal (no data) polyamines (16 compds.), such as I, were prep'd. Thus, 1,5-bis(4-isopropylcyclohexyl)-3-pentanone was prep'd. by treating  $\beta$ -pinene with Ac<sub>2</sub>O, reducing 3-(4-isopropylcyclohexenyl)propionic acid, treating 3-(4-isopropylcyclohexyl)propionic acid with Fe, and treating the resulting ketone with HN[(CH<sub>2</sub>)<sub>3</sub>NH<sub>2</sub>]<sub>2</sub> to give I.

IT      106-89-8, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with cyclohexanebis(methylamine))

RN      106-89-8    HCA

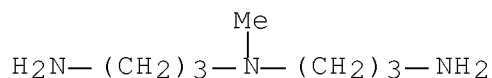
CN      Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



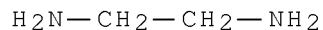
IT 56-18-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with cyclohexylalkanones)  
RN 56-18-8 HCA  
CN 1,3-Propanediamine, N1-(3-aminopropyl)- (CA INDEX NAME)



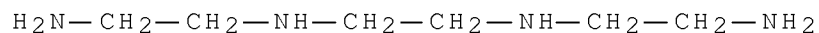
IT 105-83-9 107-15-3, reactions 112-24-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dicyclohexylalkanones)  
RN 105-83-9 HCA  
CN 1,3-Propanediamine, N1-(3-aminopropyl)-N1-methyl- (CA INDEX NAME)



RN 107-15-3 HCA  
CN 1,2-Ethanediamine (CA INDEX NAME)



RN 112-24-3 HCA  
CN 1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)- (CA INDEX NAME)



IC C07C087-14  
CC 24-5 (Alicyclic Compounds)  
IT 96-26-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(alkylation by, of triazanone deriv.)  
IT 106-89-8, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)



(reaction of, with cyclohexanebis(methylamine))  
IT 56-18-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with cyclohexylalkanones)

IT 105-83-9 107-15-3, reactions 109-76-2

112-24-3 616-29-5

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dicyclohexylalkanones)

L276 ANSWER 34 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 84:121718 HCA

TI Durable softening and water repellents. II. Syntheses of  
1,2-disubstituted imidazoline compounds

L276 ANSWER 35 OF 35 HCA COPYRIGHT 2009 ACS on STN

AN 81:51056 HCA Full-text

TI Diester-amine adducts as fabric softeners

IN Schaefer, Paul; Ibrahim, Jutta; Gysin, Hanspeter

PA Ciba-Geigy A.-G.

SO Ger. Offen., 63 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

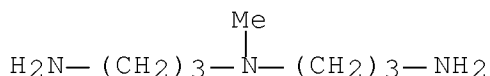
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	DE 2341045	A1	19740307	DE 1973-2341045	197308 14
				<--	
	CH 575909	A5	19760531	CH 1972-12348	197208 21
				<--	
	ZA 7305394	A	19740731	ZA 1973-5394	197308 08
				<--	
	AU 7359077	A	19750213	AU 1973-59077	197308 09
				<--	
	NL 7311206	A	19740225	NL 1973-11206	197308 14
				<--	

US 3979442	A	19760907	US 1973-388525	197308 15
BE 803775	A1	19740220	<-- BE 1973-134723	197308 20
FR 2196992	A1	19740322	<-- FR 1973-30213	197308 20
GB 1419154	A	19751224	<-- GB 1973-39341	197308 20
IT 1002508	B	19760520	<-- IT 1973-52080	197308 20
AT 7307234	A	19761215	<-- AT 1973-7234	197308 20
AT 338224 SU 561507	B A3	19770810 19770605	<-- SU 1973-1959053	197308 20
JP 49057196	A	19740603	<-- JP 1973-93007	197308 21
JP 52047075	B	19771130	<--	
PRAI CH 1972-12348	A	19720821	<--	
CH 1973-11303	A	19730803	<--	
AB	<p>C12-22 alkyl esters of maleic anhydride or fumaric or itaconic acids were treated with di-, tri-, or pentaamines, optionally contg. OH groups, to give title adducts, which were optionally treated with epichlorohydrin [106-89-8] or propylene oxide [75-56-9], and used as fabric softeners in a quaternary ammonium or acid salt form. Thus, dioleoyl maleate [105-73-7] was treated with N,N-bis(3-aminopropyl)methylamine [105-83-9] to give diester-amine adduct (I) [52031-38-6] which was mixed with water and <del>HCO2H</del> to give a stable colorless emulsion contg. I salt, that increased the softness of cotton tricot and sponge cloth 4 and 3.5 times, resp., that of untreated fabric.</p>			

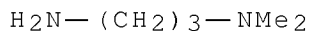
IT 112-57-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with dioleoyl maleate, in fabric softener manuf.)  
 RN 112-57-2 HCA  
 CN 1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]- (CA INDEX NAME)



IT 105-83-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with fatty acid esters of maleic acid, in fabric softener manuf.)  
 RN 105-83-9 HCA  
 CN 1,3-Propanediamine, N1-(3-aminopropyl)-N1-methyl- (CA INDEX NAME)



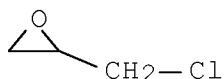
IT 109-55-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with fatty esters of maleic acid, in fabric softener manuf.)  
 RN 109-55-7 HCA  
 CN 1,3-Propanediamine, N1,N1-dimethyl- (CA INDEX NAME)



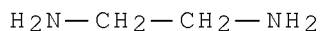
IT 111-40-0  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with fatty esters of unsatd. diacids, in fabric softener manuf.)  
 RN 111-40-0 HCA  
 CN 1,2-Ethanediamine, N1-(2-aminoethyl)- (CA INDEX NAME)



IT 106-89-8, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (with diethylenetriamine-dioleoyl maleate adduct, in fabric  
 softener manuf.)  
 RN 106-89-8 HCA  
 CN Oxirane, 2-(chloromethyl)- (CA INDEX NAME)



IT 107-15-3, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (with fatty esters of maleic acid, in fabric softener manuf.)  
 RN 107-15-3 HCA  
 CN 1,2-Ethanediamine (CA INDEX NAME)



IC C07C; D06M  
 CC 39-10 (Textiles)  
 Section cross-reference(s): 23  
 IT DL-Aspartic acid, N,N'-(iminodi-2,1-ethanediyl)bis-, acetate, alkyl  
 alkenyl esters  
 DL-Aspartic acid, N,N'-(iminodi-2,1-ethanediyl)bis-, formate, alkyl  
 alkenyl esters  
 DL-Aspartic acid, N,N'-1,2-ethanediylbis-, dimethyl phosphite, alkyl  
 alkenyl esters  
 DL-Aspartic acid, N,N'-1,2-ethanediylbis-, formate, alkyl alkenyl  
 esters  
 DL-Aspartic acid, N,N'-[(methylimino)di-3,1-propanediyl]bis-,  
 formate, alkyl alkenyl esters  
 DL-Aspartic acid, N,N'-[[ (2-hydroxy-1-methylethyl) imino] di-2,1-  
 ethanediyl]bis[N-(2-hydroxy-1-methylethyl)-, formate, alkyl  
 alkenyl esters  
 Formic acid, compd. with  
 2,2'-[iminobis(2,1-ethanediyliminomethylene)]bis[butanedioic  
 acid], alkyl alkenyl esters

Formic acid, compd. with  
N,N'-(iminodi-2,1-ethanediyl)bis[DL-aspartic acid], alkyl alkenyl  
esters

Formic acid, compd. with  
N,N'-1,2-ethanediylbis[DL-aspartic acid], alkyl alkenyl esters

Formic acid, compd. with  
N,N'-[(methylimino)di-3,1-propanediyl]bis[DL-aspartic acid],  
alkyl alkenyl esters

Formic acid, compd. with  
N,N'-[[ (2-hydroxy-1-methylethyl)imino]di-2,1-ethanediyl]bis[N-(2-  
hydroxy-1-methylethyl)-DL-aspartic acid], alkyl alkenyl esters

Formic acid, compd. with  
N-[3-(dimethylamino)propyl]-DL-aspartic acid, alkyl alkenyl  
esters

Phosphorous acid, dimethyl ester, compd. with  
N,N'-1,2-ethanediylbis[DL-aspartic acid], alkyl alkenyl esters

RL: USES (Uses)

(softening agents, for textiles)

IT 100-36-7 112-57-2 616-29-5 7803-57-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with dioleyl maleate, in fabric softener manuf.)

IT 105-83-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with fatty acid esters of maleic acid, in fabric  
softener manuf.)

IT 109-55-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with fatty esters of maleic acid, in fabric  
softener manuf.)

IT 111-40-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with fatty esters of unsatd. diacids, in fabric  
softener manuf.)

IT 75-56-9, reactions 106-89-8, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(with diethylenetriamine-dioleyl maleate adduct, in fabric  
softener manuf.)

IT 107-15-3, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(with fatty esters of maleic acid, in fabric softener manuf.)